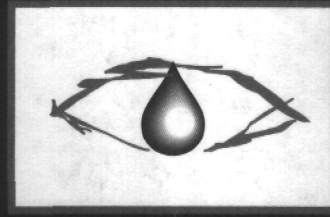


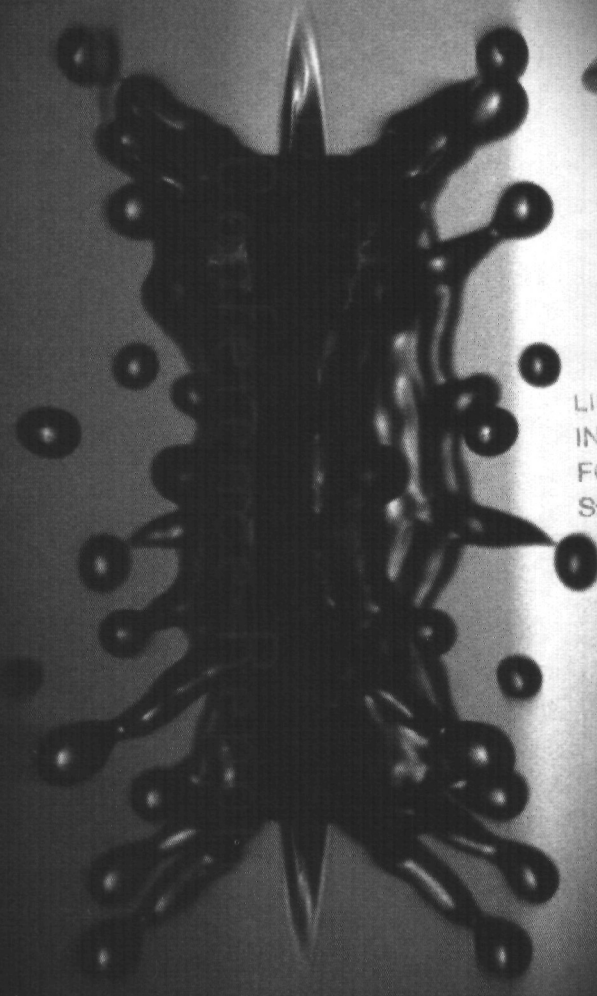
Ministerial Conference
on Drinking Water
and Environmental Sanitation

March 22nd / March 23rd



1994 Noordwijk

Conference Report Volume 1 of 2



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Ministerial Conference on Drinking Water and Environmental Sanitation

NOORDWIJK CONFERENCE REPORT

COVERING

**THE MINISTERIAL CONFERENCE ON DRINKING WATER
AND ENVIRONMENTAL SANITATION**

NOORDWIJK, THE NETHERLANDS, MARCH 1994

VOLUME 1 OF 2

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**Minister Hans Alders of the Netherlands and
Minister Klaus Töpfer of Germany
on the first day of the Conference**

**FOREWORD
BY
MINISTER J.G.M. ALDERS**

It gives me great pleasure to present this report as the outcome of the Ministerial Conference on Drinking Water and Environmental Sanitation, held in Noordwijk, the Netherlands, in March 1994.

This conference was one of the first concrete steps towards implementing the results of the UN Conference on Environment and Development, Agenda 21, Chapter 18. Its results are set out in a Political Statement and an Action Programme.

During the Conference, prompt action was stressed again and again. The world is facing a severe water crisis in quantitative and qualitative terms. The issue needs priority at both the national and international level, with particular emphasis on urban areas, health and nutrition. Attention must also be directed at: a better knowledge of water resources, threats caused by industrial and bacteriological pollution; and pesticide contamination; all points which reinforce the need for integrated resource management.

Participation between the parties involved was considered of crucial importance, even if it implies changing the role of governments to enablers. Attention was also given to the transboundary issues of conflict prevention. It was generally agreed that an adequate level of human resources will be essential for the implementation of the Action Programme.

One of the main issues was the need for adequate finance. Water should be regarded as an economic good which must be priced at the appropriate level. Domestic financial resources must be mobilized, using innovative approaches. There is a need for the better use of existing finance and, if possible, private investment.

The results of this Conference were input into the second meeting of the United Nations Commission for Sustainable Development, which was held from 16th to 27th of May 1994 in New York. The UNCSD endorsed the Action Programme, regarding it a main instrument for implementing Agenda 21, Chapter 18, and welcomed the offer from the Netherlands and others, to support the follow-up. The CSD urged countries to assess goals and targets in the field covered by the Action Programme, and requested them to report, on this, at the review session in 1997.

I would like to thank all those who contributed to the success of the Conference. The Conference was attended by 81 delegations, of which 9 were from International Organisations. It was also particularly gratifying to see such a positive contribution coming from the NGO's, very many of whom were represented at this Conference.

I recommend this report to those who are concerned with the implementation of sustainable development and questions relating to global harmony.



The Minister of Housing,
Spatial Planning and the Environment

Introduction

This is the first of two volumes, and forms part of the Final Report on the Ministerial Conference on Drinking Water and Environmental Sanitation held in Noordwijk, the Netherlands on 22 and 23 March 1994. The second volume contains: the background papers prepared for this conference, the French round table and World Bank annexes, and the reports by ESAs on the present position in this field.

This first volume contains:

1. Preconference Activity and conference proceedings
2. Opening address by Minister Alders
3. Keynote speeches of UNEP, UNICEF, World Bank
4. Special Statements of the USA, India, Approtech Asia
5. Statements made by the Heads of Delegations
6. The Political Statement and Action Programme
7. List of Conference Participants
8. List of Conference Staff
9. Closing Remarks by Ministers Töpfer and Alders.

Correspondence, or other forms of communication, regarding the substance of either of the two volumes that make up this report, should be sent to the Conference Secretariat at the following address:

Ir. G.W. Ardon
Secretary to the Conference
Ministry of Housing, Spatial Planning and the Environment
P.O.Box 30945/630
2500 GX The Hague
The Netherlands

Whilst every attempt has been made to accurately reflect, in written form, what was said at the Conference, the Secretariat apologises for any errors which have escaped the attention of the editors.

Final Report

Pre-conference Activity and Conference Proceedings

Introduction

At the invitation of the Netherlands' Minister of Housing, Spatial Planning and the Environment and the Minister of Development Cooperation, the representatives of sixty-two governments, ten international organizations, the Commission of European Communities, and eight non-governmental organizations met at Noordwijk in the Netherlands on the 22nd and 23rd March 1994, at Ministerial level. Two additional countries, Ireland and Korea, and a further eight Non governmental Organizations attended the Conference as observers. Prior to this Conference, Senior Officials, representing the same countries and organizations, met on the 19th and 20th March, also at Noordwijk, to prepare for the Ministerial Conference itself. As a result of this pre-conference meeting, and further deliberations at the Ministerial Conference, amongst the Ministers attending, a document was adopted by consensus. What has now become known as the Noordwijk Statement and Action Programme was released to the Press on the afternoon of the 23rd March 1994.

This report covers the events outlined above, and it does so in two volumes. Volume one contains: a description of the activities that led up to the Ministerial Conference and the events at the Conference itself; the Conference Statement and Action Programme in English (the official version), Arabic, Chinese, French, Russian, and Spanish; statements made at the conference by key-note speakers and Heads of delegations; and a list of participants (organizations and delegates) and Conference Staff. Volume two includes the six background papers prepared for the Conference and reports by the External Support Agencies on recent activity, on their part, in the field of drinking water and environmental sanitation.

Summary of pre-conference activity

Preparations for the Ministerial Conference began in April 1993. An international Steering Committee was formed from the representatives of Antigua, Australia, Bolivia, Brazil, China, Egypt, France, Germany, Hungary, India, Indonesia, Japan, Jordan, Mexico, Morocco, Namibia, Netherlands, Nigeria, Russian Federation, Senegal, Sweden, United Kingdom, and the USA; The CEC, FAO, UNCED, UNEP, UNCHS, UNDP, UNICEF,

WHO, and the World Bank; Approtech Asia/ISW, CAPE 2000/EDF, IAWQ/IWSA, IRC and the WSSCC.

The Secretariat was staffed from the Netherlands' Directorate-General for the Environment. The Committee met in the Netherlands, in July and November 1993 and February 1994, and devoted itself to the preparation of the six background papers, the format and style of the coming conference, and a preliminary draft version of the Conference output document.

The objectives of the Ministerial Conference were to: raise political awareness of the present plight in the field of drinking water and environmental sanitation, to make more specific the recommendations of the UNCED Agenda 21 Chapter 18, and to act as an intercessional forum for the forthcoming UNCSD meeting in May 1994 where water issues are to be discussed.

Immediately prior to the Ministerial Conference, as a penultimate preparatory action, the Senior Officials of all attending countries and organizations, met at Noordwijk. This three day meeting confirmed the status of the background papers.

These papers were:

1. Putting UNCED Agenda 21 to work (the Advocacy Paper).
2. Achievements and Challenges (State of the Art).
3. Policy/Strategy for action - Effectiveness Paper
4. Policy/Strategy for action - Finance Paper
5. Policy/Strategy for action - Collaboration Paper
6. Policy/Strategy for action - Synthesis Paper.

The first draft of the Conference Output Document was based upon the contents of these six background papers and the views of the representatives of the International Steering Committee.

The equally important task of the Senior Officials Meeting was to further develop the Conference Output Document to a point where it could be pre-

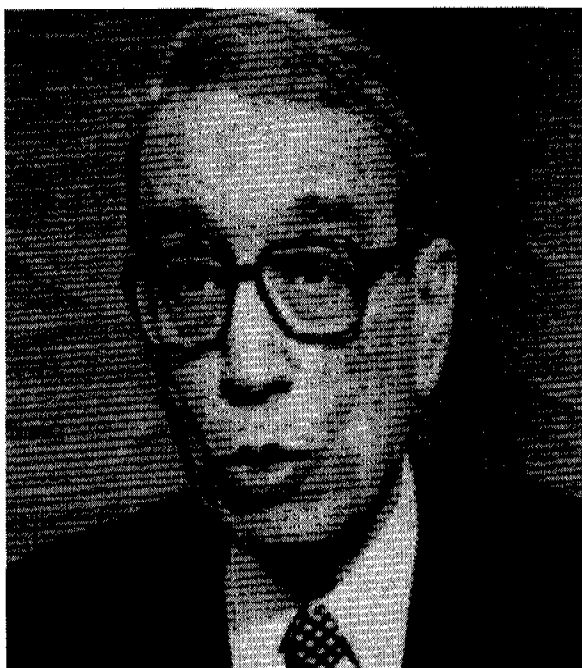
sent to the Ministerial Conference for the final consensus of the Ministers themselves. With the help of a suitable mixture of plenary sessions, facilitated working groups and a drafting committee (on which sat representatives from Antigua, Argentina, Chile, Egypt, Hungary, Indonesia, Nigeria, Russian Federation, Sweden, the United Kingdom and the USA; chaired by the Netherlands), the work was successfully carried out over a period of two and a half days.

Proceedings of the Conference

The time table, or programme of activity comprising the agenda, of the Ministerial Conference will now be described. On Monday 21st March, most of the representatives at Ministerial and Head of Organization level arrived at the Huis ter Duin Conference centre in Noordwijk. This was a time when the Senior Officials, that had attended the meetings of the previous two and a half days, were able to brief their Heads of Delegation.

Tuesday 22nd March

The official opening of the Conference was conducted by Minister J.G.M. Alders of the Ministry of Housing, Spatial Planning and the Environment. After some opening remarks by Minister Alders, the Conference was treated to message, by video, from the Secretary General of the United Nations, Mr. Boutros B. Ghali.



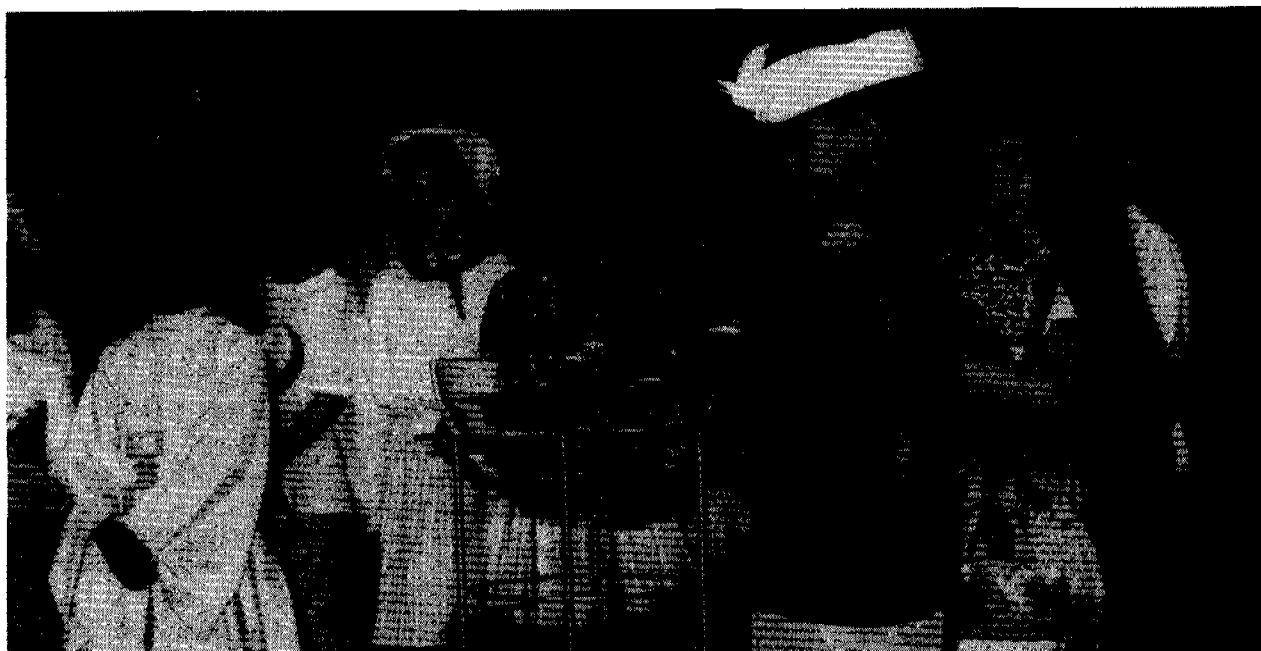
This was then followed by the 'water-bowl' ceremony performed by children from many nations. These events combined the start of the Conference, with a celebration of the UN general Assembly designated World Day for Water, held annually on the 22nd March.

Key-note speeches were given by: Mrs. Elizabeth Dowdeswell, Under Secretary General of UNEP; Mr. J. Grant, Executive Director of UNICEF; and Mr. Ismail Serageldin, Vice President of the World Bank. Special statements were then made by: Counsellor Wirth, from the USA; Mr. Nath, Indian Minister for the Environment and Forests, and Mrs. Ramos from Approtech Asia representing the Non Governmental Organisations (NGOs). All these speeches and statements are reproduced in this volume of the report.

Minister Alders, as chairman of the Ministerial Conference asked for and received approval for the proposed Conference Agenda and Programme.

Two co-chairmen, Minister Nath from India and Minister Töpfer from Germany were nominated and unanimously approved by the meeting. Chairmen and Moderators for the five conference sessions were also nominated and approved. These were:

Chairman	Moderator
Session 1 Mr. Mikheev (Russ. Fed.)	Mrs. M. Catley Carlson (WSSCC)
Session 2 Mr. Mokdad (Algeria)	Mr. J. Grant (UNICEF)
Session 3 Mr. Al-Akayleh (Jordan)	Mrs. E. Dowdeswell (UNEP)
Session 4 Mr. Cardoso (Guinea Bissau)	Mrs. A. Barcena (Earth Council)
Session 5 Mr. Zhendong (China)	Mr. L. Bays (IWSA)



The United Water Bowl Ceremony

Each session, which lasted approximately one and a half hours, was given a theme. All Heads of Delegations were invited to make interventions during the session of their choice, of no more than three minutes. The NGOs were invited to give one intervention per session. All sessions were in plenary.

The session themes and the organizations that made interventions at each, were as follows:

Session 1 - Drinking Water and Environmental Sanitation - The present plight and future challenge.

Yemen, Indonesia, Palestinian Delegation, Sweden, Botswana, Hungary, Pakistan, Uzbekistan, UNESCO, Denmark, and Tunisia.

Session 2 - Water and People - building collaboration and partnership.

China, Morocco, United Kingdom, NGO (Paraguay), FAO, Poland, Senegal, Egypt, Namibia, Tanzania, Ghana, Philippines, WHO, World Bank, IRC, WSSCC, Costa Rica, Bhutan, NGO (Kenya), and Switzerland.

Session 3 - Water, Health and the Environment - Integrating water policy.

France, Canada, Italy, Norway, Belarus,

Australia, Czech Republic, Israel, Kenya, African Development Bank, WMO, NGO (Netherlands), and Mozambique.

Wednesday 23rd March

Session 4 - Water and Assets - Mobilizing the resources.

Benin, Algeria, Mexico, Slovakia, Bolivia, NGO (CAPE 2000), Nigeria, UNICEF, Chile, Burkina Faso, NGO (Earth Council), and Jordan.

Session 5 - Water and Institutions - Organizing service provision and effectiveness.

Japan, Cuba, Argentina, Brazil, IWSA/IAWQ, Turkey, NGO (Morocco), UNDP, Antigua and Barbuda, NGO (IHE), Jamaica, Germany, Malawi, Guinea Bissau and Nicaragua.

All interventions (statements) by Heads of Delegations, made available to the Conference Secretariat, have been reproduced in this volume of the report.

Where an intervention was made but no written text available, the Conference Secretariat have reproduced the verbal statement from a tape made of the Conference Proceedings. Where a written text was submitted in a language other than English, an unofficial translation has been made into English and printed next to the original version. In addition, a summary was made of the session interventions, together with any accompanying discussion, and is given below. The accuracy of these summaries is a responsibility that rests entirely with the Conference Secretariat.

Plenary Session 1

Chairman Mr Mikheev, Russian Federation
Moderator Mrs Catley Carlson

Yemen:

Water is our most important resource, and the people of the Yemen are trained to use this resource without waste. The Marib Dam built 2,000 years ago is an illustration of this. Now with the drying up of our aquifers, the Yemen Government considers environmental protection and water supply as one of the most important aspects of our work.

There are major difficulties in large centres of population and in water for agriculture. The Yemen has to import food. The Marib dam and many canals have been rebuilt. Despite this we are not able to provide environmental sanitation and clean water for as many people as we would like because of our financial resources.

The action plan is of great importance and the potential for conflict demands that developed countries help developing countries. The Yemen understands the importance of regional cooperation.

Indonesia:

Speech read on behalf of the Minister of Public Works.

The conference should reaffirm the commitment of the world community to the concept of water for all, to give new momentum to our commitments for drinking water and sanitation. The Rio policies were in a global context of water resources management. Drinking water and sanitation should not be discussed as a separate issue. Suggested the conference should be renamed as Ministerial Conference on Drinking Water and Environmental Sanitation for Sustainable Development.

Indonesia is starting its second long term development plan, which promotes integrated water resources management. It focuses on human development, an aspect which is often omitted from drinking water and sanitation. We are glad to see that the political statement has taken due note of human development. We have a rapid urban population growth that will treble by the year 2010 .

Indonesia is aware of the need to ensure that plans are responsive to community participation. We endorse in principle the political statement and action programme, and express our strong commitment to implementing Agenda 21.

Palestinian Delegation:

Water is one of the most important issues for the reconstruction programme in Palestinian territories. It will be impossible for our people to achieve regeneration before they restore the right to the Jordan River basin. Water has been expropriated by Israeli settlement. Since 1967 Palestinians have been deprived of their rights to the Jordan River due to Israeli actions upstream. 35% of people in urban areas and 70% in rural areas are deprived of water. In Gaza strip pollution and high salination affects 70% of the water.

Water is a major component of the Arab Israeli conflict, and will lead to renewed conflicts. Demand for water will increase in line with population. This will lead to more conflict unless comprehensive policies are adopted, leading to regional cooperation.

Sweden:

The outcome of this conference will be an important input into the CSD session planned for May.

Lack of sanitation is a fundamental denial of human dignity. Environmental sanitation must be high on the agenda. The recognition by the Collaborative Council of the importance of environmental sanitation is to be welcomed. The causes of the problem and the solutions are known. Sweden is moving

towards an eco-cycle principle, producing less fresh water and energy and introducing more recycling. We do not believe that our present system is consistent with sustainable development on a long term basis.

We welcome the proposal in the action plan to assess the global freshwater situation, and promise to promote this at the CSD session. Sweden is prepared to put in extra resources to meet these objectives and we hope that other countries will join us.

Botswana:

Botswana like other African countries relies on pit latrines, which themselves pollute groundwater sources. I would like to know what people do in their own countries to avoid this.

Hungary (State Secretary):

No country in the world will resolve the problem of drinking water by the end of the 20th century. In Hungary 96% of water comes from upstream countries, and international cooperation is very important to us. 65% of sub-surface water is in danger of pollution. Drinking water is provided for 94% of the population but sewage is treated from only 50% (and only 33% through biological treatment).

We look to the experience of the developed countries in resolving these problems. Confirm the willingness of the Hungarian Government to support the aims of the conference. As a woman and a mother I know the importance of the human contribution for sustainable development.

Pakistan (Parliamentary secretary):

This conference is a valuable contribution to the CSD; the quality of the documents are thorough and useful, and the conference gives us new hope for cooperation.

Pakistan has one million miles of water courses, and a population of 120 million people. The affordability of services is a major problem for the majority of the population.

There is now a national policy on sustainable development, and an Environmental Protection Law has been promulgated. Standards have been set for municipal effluents.

The water supply and sanitation system has been devolved to the local level.

Pakistan, as a member of the Commission of Sustainable Development will support the action programme and urges governments to relate that to an effective funding mechanism.

Uzbekistan:

We are a former Soviet Republic with huge natural and human resources. The country is 447,000 square kilometres and the population is 22 million. There are 4,5 million hectares of agricultural land.

There are many problems with water resources and the quality of the water. Huge problems led to the Aral Sea drying up and the destruction of environmental equilibrium. This was one of the worst human induced environmental disasters of the twentieth century. This came about as a result of an economic policy which aimed simply at increasing production, treating the environment as a cost free input.

Our aim is to get back to realistic standards for the kind of environment which could be preserved under an economic system which takes account of its actions on resources.

UNESCO (On behalf of Secretary General):

This is a major step towards implementing Section 21. Water is one of the most important issues for the end of the century, not only in itself, but also for the role that water plays in society. Attitudes to water depend on the level of water supply. Where it is plentiful it is accepted as a natural resource; where it is scarce it is a source of conflict. Improving the science of water is important for generations to come. Increasingly the environment will only be protected if sufficient importance is given to long term scientific efforts.

Denmark:

Nordic countries launched the Nordic freshwater initiative which had two main principles:

1. Water and land resources should be managed at the lowest appropriate level.
2. Water should be considered an economic good with a value equal to its most valuable use.

These are reflected in Chapter 18 of Agenda 21, which says water is a finite resource which should be managed in an integrated manner. Drinking water is one of the most important areas of development assistance, but it is one of seven programme areas in Chapter 18. Consideration of sanitation is of equal if not at times higher importance.

Increasing attention should be paid to pollution of groundwater by toxic pesticides and other agricultural poisons. These need to be eliminated.

Tunisia:

Tunisia is in South Mediterranean region and is arid or semi arid. There is conflict between the need for more water and stress and pollution from production. People on the coast need increased levels of water to satisfy their needs. We need solutions which allow long term sustainable growth.

Tunisia has a special commission to prevent the pollution of groundwater. 85% of the water in the country is used by agriculture while the urban requirement increases 2.5% per annum.

Now the policy is to impose quotas and to limit water to tourist areas. 76% of the population is now attached to a sewerage system, and 80% of waste water is processed. Recycled water is returned to

groundwater. Industry can claim from an anti pollution fund to clean up their processes. Steps in the future will be taken to contain demand, and to underline the importance of the use of water resources. Tunisia wants to stress the importance of cooperation and solidarity, because we are all affected by problems of quantity and quality of water. Tunisia is grateful to help received from Sweden and the Netherlands helping them to renegotiate their pollution debt.

Chairman:

The Chairman (Mr Mikheev) thanked the Netherlands Government for hosting and organising the conference. In Russia three quarters of the people drank poor quality water. To improve things now would be difficult and complex. The problem stems from a time when it was considered that water was free. People pay 1,000 times less for their water than in Europe. We thought it was a social good, but the negative aspects are evident now, and Russia has to take difficult decisions. New methods of water conservation and management will be based on economic principles and people will have to pay for their water as they do in other countries.

Session 2: WATER PEOPLE

Chairman: Mr. Mokdad (Algeria)

Moderator: J. Grant (UNICEF)

At his opening statement, Chairman Mokdad mentioned water supply is one of the most basic issue impacting on all development policies. The role of government in policy formulation including the provision of an enabling environment water, non-committively the free participation of population was underlined, which must have a feeling of ownership in and relevancy to the politics.

Mr. Grant, the Moderator, in his opening statement, before calling on delegations for statements and interventions, underlined the importance of this session focusing on collaboration and partnership as personified in the Conference Action Programme. He emphasized, with respect to this, the following points, questions or issues: what is the extent of collaboration, on a joint basis between local communities and authorities, at all levels?; what is the status of partnership in the area of financing at different levels (national, provincial, and local), water respect to health and education; what partnership, if any, exists in resource conservation and demand management in water resources, when as an example, in India, excessive drawdown for irrigation dries up the water supply boreholes; what is partnership between government and the donor community; and, finally, what is the level of partnership and collaboration at national and international level of partnership and collaboration at national and international level between programmes in water supply and such water related programmes as guinea worm eradication. Mr. Grant concluded, before introducing the speakers, by suggesting that goals enunciated and concordats achieved or proclaimed in other fora, such as the Children's Summit, could logically be referred to and focused on in Action Programme.

(China) - concluded the key relationship and benchmark role of water supply and sanitation in a sustainable development framework underlining government of China's commitment in focus of legislation and laws facilitating implementation. Specific steps? made in urban water supply and sanitation were stressed, while attention was drawn to urban water supply and environmental infrastructure problems needing attention.

Underlined China's commitment to implementation of Agenda 21 hand-in-hand in cooperation at the international level.

(Morocco) - underlined the integrated comprehensive approach to water supply and irrigation in the context of a policy of integrated water resources management under His Majesty The Kings' personal involvement and direction which has resulted in continuing major studies in service coverage of populations with emphasis on citizen participation in management and financing. A major objective is to achieve balance in programme focus between urban and rural populations, with a major conference on rural areas being organized in November 1994 with the support of UNDP. Finally, the Moroccan Minister requested that the Crown Prince's initiative at the Rio Earth Summit on the establishment of an international fund for water resources protection and pollution control be registered/mentioned in the report.

(UK) - in stressing that the apparent simplicity of water supply issues, which pervades are problems, in deceptive, outlined the following choices: the need to involve the private sector and stakeholders including NGOs. In this context mentioned the unique role of WATER AID, which receives voluntary contributions as part of billings for UK Water Supply, in promoting successfully low cost technology and community participation in its cooperation programme with developing countries.

(NGO 1/II/Paraguay - "Survival") - stressed that geopolitically, particularly with respect to transboundary issues, water use will be a paramount factor in contributing to conflicts between states or their resolution. In indicating that the Ministerial Conference has shown, it is documentation and deliberations, an understanding of transboundary issues underlined the imperative nature of national and equitable management of shared water resources enhanced and facilitated by regional cooperation in conjunction with the sponsoring of bilateral and multilateral agreements, is a regional basin cooperation framework. Ended the statement by underlining that water security was one of these fundamental human rights.

(FAO) - underlined necessity - increasingly integrated approach between water supply and irrigation on resource conservation, demand management approach. Clearly, a forward looking policy is needed on national allocation of water resources to different sectors. FAO stands nearby to

assist in policy formulation. Primacy of drinking water viz other uses is recognized. Irrigation must produce more, with less land and water through a more effective use. FAO producing guidelines on chemical pollution of water resources. Attention increasingly given to reuse of waste water in urban context. Noted that management on a river basin basis enhances building cross-sectoral understandings on resource conservation and demand management, and in this context, the Ministerial Conference Programme shows the way.

(Poland) - Ministerial Conference can provide breakthrough from old ways of dealing just with water supply and sanitation matters, rather than as in the case in the new Polish water legislation, of the integrated approach. In this context, the principle of decentralization and devolution is critical and, finally, new financial mechanisms are essential including emphasis on the work of the private sector.

(Senegal) - warns of degradation of environment on a transboundary basin with acute danger for the ecological balance - water creates an interdependence between biological, physical and economic factors. In view of this, the Ministerial Conference must be a milestone in the implementation of the concept of sustainable development. Water is the cradle of civilisation and in Africa absence of water, necessary for survival, has been the critical factor. Climatic changes, population growth, et al have aggravated a catastrophic situation. Senegal making strides in meeting the challenge including environmental sanitation particularly in urban - peri-urban context with assistance from external donors. Finally, this meeting, in bringing to life Agenda 21, must go beyond rhetoric.

(Egypt) - Endorses tenure Political Declaration and Action Programme, which we have been aware of since February ISC. Now we must translate these into action and mobilize necessary external support for those countries which have set up systems and strategies. Egypt's motto is "give a glass of clear water to each citizen."

(Namibia) - Applying sector policies, as defined in Action Programme across-the-board and, as a result, are making major quantifiable studies since independence in 1990. Water sector policy, which approved in 1993, opens door to the mobilization of external support with guarantees of effectiveness of programme for both partners.

(Tanzania) - Water sector (WSS) is a key aspect of development programme accounting for 6% of annual development programme budget. Have learnt many lessons over the years including high operational costs due to inadequacies in O&M. 35% of infrastructure (handpumps) are not operational or delivering. This has resulted in adoption of devolution to community-based and management with low-cost technology and participation of the private sector as well as more attention to the role of women and further integration between WSS and health considerations. Tanzania recognizes the necessity for a strategy based on resource conservation and demand management, optimal O&M, recycling of wastewater and regional and sub-regional cooperation. Collaboration is essential to win the battle.

(Ghana) - Collaboration and cooperation among stakeholders, on the basis, indicated some 10 years ago, of a decentralized approach now achieved in some 110 districts is a key to success. Government plays role of facilitator, motivator, and evaluator with local communities including the private sector, for the provision of goods and services, manage programmes in 6 out of 10 regions. This policy works to the extent that communities receive maximum information and that decisions are made on the basis of effective demand considerations.

(Philippines) - People, organized on community basis, must solve problems. Advocacy, networking, social mobilization, with actors and sports stars and other role models, and communication skills, in general is key, along with integrating WSS into public health campaigns and adopting low-cost technology and solutions in general. The Ministerial Conference has opened eyes to the goal of organizing a national conference as a follow-up with wide participation including NGOs.

Global relations between north and south related to WSS, need addressing particularly in trade related area with timber exports deteriorating watersheds; the export of toxic and other solid waste from developed to developing countries; and the export of unlicensed pesticides and chemicals to developing countries.

(WHO) - The time of this Ministerial Conference is right, for countries and organizations, to reassess WSS. Plea for institutional partnership with countries of Africa region and WHO in promoting Africa 2000 to meet devastating problems of African continent in water supply and sanitation.

We need to define new investment techniques and technologies.

Requests that Ministerial Conference endorse the Africa 2000 initiative.

Mr. Grant, Moderator, responded that it would be appropriate to underline special need for a partnership for Africa by the Conference.

(World Bank) - Three main areas of action are needed: transform principles into actions; need to learn from past and then adapt experiences; and the essential need is for partnership and collaboration. It was underlined that the new Bank Water Resources and Management Plan reflects well the above principles. The Bank representative, mentioning order of magnitude of Bank activities, mentioned that current investments annually in water resources sector (irrigation and hydropower, etc.) were \$ 3 billion annually while WSS represented \$ 1.2 billion. On a query from the Moderator breakdowns with respect to WSS financing between urban, rural and peri-urban were provided. The Bank mentioned emphasis in projects on environmentally sustainable approach and on most needs in population! Finally, with respect to collaboration with other agencies special mention was made of institutional case studies and on hydrological data collection in developing country regions.

(IRC) - Ministerial Conference is first step in long process of evolution in policies and strategies for the unserved. A more forceful and different approach is needed, building on achievements of the Water Decade but remembering that the IDWSSD was only able to keep pace with demographic factors. Agenda 21 has created a new awareness and understanding that sustainable development requires integration of WSS in water resources approach. Behavioral change predicated change in the role of government and division of responsibilities, through capacity building of stakeholders and communities. We need to develop new knowledge base in such key areas as community management, gender issues, innovative techniques on the problem of urbanization and sanitation, which needs urgent priority attention. IRC is prepared to make its specific contribution as a catalyst for change in information and communication in partnership with developing countries, ESAs and the WSSCC.

(WSSCC) - The Council represents and acts in conjunction with sector practitioners, involving various constituencies active in the sector from country and international levels. Increasing attention is being given to practitioners from private and

related sectors. Council products involve case studies, guidelines - products of a practical, applicable nature with objective of change through the action of practitioners. Future challenges for WSSCC involve addressing unaccounted for water, with emphasis on technological and managerial factors; hygiene and sanitation as a new priority emphasis. The Council as proposed by the Ministerial Conference, is prepared to go into cross-sectoral issues (going beyond WSS) if the Council has the resources.

(Costa Rica) - While the country has made major studies on potable water, only half the agenda has been met since country faces serious pollution problems particularly with respect to wastewater. A proliferation of uncoordinated agencies dealing separately with various aspects of WSS has vastly contributed to the problems - new legislation will deal with coordination action of the various institutions. This model should be supported by the Ministerial Conference.

(Bhutan) - Moving ahead with WSS strategy with 6% total plan outlay. Coverage populations of both rural and urban increasing with major help by 1992. Royal decree on household latrines which is key incentive for population. Decade participatory and cost recovery concepts applied including devolution and change of role of government. Capacity building is a major tool, as is newly applied integrated approach including education and health sectors. Environmental sanitation in urban areas is major and growing threat - are setting up regulatory framework for solid and liquid waste water assistance from the Netherlands in framework of an agreement signed on 22 March, 1994. Furthermore, Bhutan will make major effort to implement Action Programme.

(NGO/Kenya) - Emphasized imperative participation of the population. New investment, unlike during IDWSSD, must emphasize participatory approach. In other words, less capital and more people-intensive! Underlines that people that are excluded will undermine system and projects and programmes will fail. ESAs and governments in adopting such an approach must avoid tendency for top-down methodology.

(Switzerland) - Share common concepts fostered by Ministerial Conference: integration of WSS into national water resources and environmental strategies; and a strong emphasis on socio-cultural factors as basis to collaboration - utilities have failed

by not recognizing this. Furthermore, there are 5 building blocks:

- 1) participation and mobilization including the gender balance;
- 2) clarification of respective roles by transforming that of government and strengthening that of the private sector and communities;
- 3) demand based service provision including upgrading;
- 4) appropriate technology based on user preference; and
- 5) reinforcing existing problem-solving capacity, since sustainability depends on capacity-building (CB). This includes information technology and communications.

Finally, Switzerland underlines that networks are a key medium for change. In this context, strongly supports strengthening of WSSCC as Conference resolution, as well as terms of section 19 on role of Council as facilitator for the establishment of a more comprehensive world water resources forum or council.

SESSION 3: THE INTEGRATION OF WATER, HEALTH AND THE ENVIRONMENT

Chairman: Mr Ahmmad Al-Akay (Jordan)

Moderator: Mrs Dowdeswell (UNEP)

Contributions:

France: (Ambassador)

He sent the best wishes of the French Minister of the Environment (M. Barnier) who was particularly interested in the problems of urban areas in developing countries. The French had hosted the Sophia Antipolis conference in February which had addressed this issue, and the Minister hoped that the recommendations of that conference could be attached as an annex to the statements from this conference.

The situation on a global scale is getting worse and that is why it is important that we should stress that population growth and urban drift make it important to act without delay. It was important to ensure that the provision of drinking water was carried out in parallel with sanitation. Water is an economic good and that should be reflected in its price. Action depends on the needs of individual countries and the French Government wants to play its part.

Canada (on behalf of Minister of Environment Sheila Kopps).

All countries should have a safe supply of water. Action has been taken in Canada and globally to develop cooperation, internationally through the ?Council of Environmental Ministers? and in Canada through action plans for water supply. Many provinces of Canada have introduced new environmental protection laws. Partnerships have been formed within Canada with NGOs, (one of which resulted in the drop of hope).

The answer to our problems is action rather than more planning. Canada has acted on the blueprints from the Dublin statement and from Agenda 21. Urged everyone to get on with the task.

Italy: (on behalf of Minister Spini)

After Rio Italian Government took action on two levels in Italy:

At national level, a framework of legislation was passed this January to integrate all legislation aimed at protecting water from waste.

At global level, promoting a strategy which brings together the pattern of water resources and the reuse of used water. (not clear).

Norway (Secretary of State, Borre Pettersen):

The world does not need to wait for new research of technology. It is a question of implementing existing knowledge.

Water is a social and economic good. Social goals and planning do not necessarily require equal charges for all users. Consideration should also be taken of the consumer's ability to pay. Polluters must pay the cost of recleaning that water.

Decisions concerning water resources and their management should be taken close to the users. Women are the principal providers of water for the family, and they suffer the greatest consequences of lack of supply. Their involvement is an important factor for successful management and planning.

Belarus:

We fully back the documents of this conference. We have 10.5 million people and at present water is of good quality. Because of the economic difficulties the country is finding it difficult to set up adequate sanitation in some areas.

Moreover 50% of rural people get their water from wells that are not deep and, since Chernobyl affected vast areas of the country we know that shallow wells are not adequately protected from nuclear pollution.

There has not been sufficient study of the effects of a global catastrophe like Chernobyl, and of areas which do not have enough water. The World Bank has agreed to support us.

The quality of the water we produce has an impact on health, and the biological and chemical components of water are paramount.

Measures needed in Belarus are:

1. Adequate financing
2. Adequate planning for sewerage facilities to clean the water
3. Protection of water catchment areas
4. Protecting standards for drinking water.

The polluter pays principle is also important, not just in financial but also in moral terms.

Australia:

This is the driest inhabited continent in the world. However, Australia has a range from tropical to temperate climates, and water managers deal with a wide range of problems and provide for both urban and rural populations. Australia is implementing Agenda 21 through a national strategy for ecologically sustainable development. (The National Water Quality Management Strategy). This is being done through ministerial councils, of state and central governments working together. The aim is to achieve sustainable use of the national water resources, by protecting and enhancing their quality, while maintaining economic development.

Czech Republic:

85% of the 8.5 million population is connected to the state water system. This year is the 100th anniversary of the water supply programme. Drinking water is monitored according to the recommendations of the World Health Organisation and includes 94 indicators. The system in the country is nearly the same as in the Netherlands. The major programme now is the centralisation and privatisation of the drinking water and sanitation systems.

Israel:

The Middle-East is characterised by desert and stress due to a dearth of water. There is a need for Israel and its Arab neighbours to collaborate on water resources. All our efforts should be aimed at improving quality and quantity of water. In two decades the population of the Middle East will double and demand will increase by one billion cubic metres a year, so any plans for allocating existing resources are not relevant for the future.

The first phase should be the conservation, cleaning up and reuse of waste water in the region. There is a need to improve the water delivery system which can waste up to 70%.

The question is not whether we can obtain more water but at what cost we can obtain it. It is critical in the Middle East to collaborate to build resources.

Kenya:

In recent times droughts have devastated large parts of Kenya and her neighbours. River basins have dried up or are too low to support the population. Women have to walk longer distances to fetch water. The situation is getting worse because of:

1. reduced water yields, not foreseen at the start of the decade.

2. poverty, which has reduced the ability of many communities to survive. This has been made worse by the pressure of increased population.

The Government faces many problems. All countries must make full use of the role of NGOs if they are not to be left far behind in achieving the targets of Agenda 21.

A strategy to influence the plans in support of the above must be to implement a coordinating mechanism to prevent the waste of scarce resources.

1. Effective mechanism is a necessity.

2. Local community sustained operations must be a priority. Rural communities are best at managing low cost and affordable solutions. Such systems are not so useful in urban and semi urban areas. Here it is important to mobilise resources nationally and multi-laterally to serve urban areas.

3. Many systems operate below optimal levels. Here too national and multilateral support is imperative. Where possible systems should be managed by communities themselves. Cost reduction should be considered by involving communities in planning and more importantly in operating these systems.

4. Monitoring mechanisms. These should be periodically assessed. It allows government to know where it is and where it is going to, and how it is going to reach its aim.

Kenya has set up district water boards and a national Water Apportionment Board.

Africa Development Bank (on behalf the President):

Access of urban, peri-urban and rural populations to drinking water and sanitation is one of the main concerns of the bank, which has made a considerable contribution in Africa.

Between 1980 and 1990 about 12% of funds went into water and sanitation projects, a total of 1.1 billion US dollars. The proportion spent on sanitation schemes is modest and this will be reviewed next year.

Considerable progress was made over the decade of water and sanitation, particularly in areas of public health in countries like Burkino Faso, Mali and Togo. There is still a long way to go. The population of Africa is expanding at 6% a year.

The biggest challenge is cholera and malaria and other diseases. 40 million people die annually from disease in developing countries and more than half of these deaths are a result of inadequate water supply and the fact that people have not had the education to know how to avoid these diseases.

World Meteorological Organization (on behalf of Professor Bassey)

Our capability for water resource assessment is declining. We are less able globally to assess water resources than we were 15 years ago. In Africa networks have declined due to low staff competence and lack of computer data bases.

The same problems exist in many other countries around the world. Governments are reducing funding to hydrological services, although they amount to only 0.5% of any project, and although we are spending large sums of money on water projects on very fragile foundations. We will soon be using one quarter of all the water resources in the world, and that is the size of the coming water crisis.

We need to adopt a holistic approach, to adopt the whole menu and not just choose a la carte. Support for the world hydrological observing system would be of great benefit globally and nationally.

NGO - Dutch based Society for Nature and the Environment:

We must recognise the link between degraded water resources and irreversible damage. Once a water table is contaminated it is almost impossible to clean it up. This is being caused by unsuitable agriculture and industry. Wells have been poisoned by Chernobyl, and pesticides have an irreversible effect on water supplies and fisheries.

We should stop the transporting of industrial waste to emerging countries and implement pollution protection. Prevention will be much more cost effective than taking an end of pipe approach. Without water there is no life.

Mozambique:

We have introduced multi-sectoral approach with a strong emphasis on community participation. We have given new life to the National Water Council which has been almost dormant since it was formed.

Before planning and design work is carried out we need to understand how to protect quality and

quantity. We do not deny the value of the conference document but could benefit from specific proposals. (I think).

The chairman (Mr Ahmmad Al-Akaley).

The most important thing is international cooperation to face the problems before us. This needs effective planning where everyone is clear about their responsibilities. We have also heard the human dimension stressed. Only a common effort can stop the wastage of water. If we can exchange experiences and ideas, that will be the way forward.

SESSION 4: WATER AND ASSETS - MOBILIZING THE RESOURCES

Chairman: Minister Cardoso (Guinea Bissau)

Moderator: Ms. A. Barcena (Earth Council)

(Chairman Minister Cardoso) - The subject of this session is a paradox between the needs of the sector and the means, which are being reduced, to meet their needs. Therefore, how best can we use the assets or resources, which, do not incidentally, go beyond financial assets.

(Moderator Barcena) - Mentions World Bank Statement - as key to discussions.

(Benin) - Referred to the reorientation of state policies as an essential step to make progress particularly in linking Health, Water and the Environment. Special mention to the bilateral agreements between Netherlands-Costa Rica; Benin and Bhutan as an innovative mechanism to mobilize resources both national and international.

(Algerie) stressed the importance of state reforms that should be taken gradually but that need to be matched necessarily with financial and technological means and capacity building. He reminded the meeting about the need of making sure that developing countries count with the necessary resources to implement the program of action to be agreed here as well as Agenda 21.

(Mexico) stressed the need to solve the financial deficit problems and at the same time improve the use and quality of the sources of water such as rivers and underground waters. New legislation was put in place in 1992 which addressed the new culture of water. Emphasis was made to the need of an integrated approach both to the institutional and financial issues which entails an institutional reorganization that allows:

- combine fiscal policies (incentives, subsidies, tariffs, taxes and prices) and implement effectively the users and polluters principles.
- induce private participation that fulfills public interest;
- decentralize and desconcentrate the implementation and construction of infrastructure to the private sector at the local level;
- promote decision-making at the users level and ensure community based participation;
- link drinking water needs and sanitation with agriculture by promoting cost-effective reuse of resources.

(Slovak Republic) - addressed the need to fill the gap between the people supplied with drinking water and those which are benefitted by sewage systems. Decentralization was pointed as their greatest challenge ahead; that is the transference of companies and utilities to the municipalities and private sectors, including assets responsibilities and investment. Main limit for further environmental development is not the shortage of freshwater but the economics of the country. Options include the combination of international and domestic cooperation.

(Bolivia) - Government policy is to improve life of population with population responsible to indicate what their priorities are. Geographical diversity of Bolivia requires different mechanisms: priorities include peri-urban areas, increasing capacity in use of technologies and financial resources. Everyone has to contribute based on individual capacity - ensures sustainability. Bolivia has established a Ministry of Environment. Delegation (Bolivia) is struck by commonality problems in this Conference - hence need for more cooperation between participants.

NGO:(CAPE 2000)

referred to the unsustainability of financing in the water sector, due essentially to waste of water and money. Failure of mega projects specially in developing countries which are subsidizing the rich and serving the minorities. Foreign assistance and lending policies due to donor pressure tend to increase the burden of debt and dependency by returning the capital flows to the donor countries. Expressed hope regarding the 'new agenda' of the World Bank. Emphasis is needed in self-sustaining and cost-effective mechanisms. Current pricing mechanisms are regressive rather than progressive both in terms of income and consumption. In the access to credit and increase of capacity to administer the resources, NGOs can assist by acting as social brokers.

Choices of approach, technology and types of investment should be in the hands of users. NGOs will hold governments accountable on this program of action.

(UNICEF) referred to their programs on education, and expressed their commitment to consider children as basic assets for the future of water.

(Chile) Referred to the importance of legislation combined with fiscal policies in the same way as Mexico. There are undertaking programs for the rural poor, priority should be given to protect the poor and the quality of the sources of water.

(Burkina Faso) as Algeria referred to the need to obtain the needed financial resources to support the implementation of Agenda 21 and the program of action discussed here. Mentioned the creation of a special water fund as an example of the mobilization of the funds in their country.

SESSION 5: WATER AND THE WORLD - PROMOTING INTERNATIONAL SUPPORT

Chairman: Mr. Li Zhendong, China

Moderator: Mr. Len Bays, IWSA

Introducing the session, the chairman emphasised the importance of the topic in the context of achieving progress towards common goals of health improvement, environmental protection and human development. Social mobilisation is one key element in national programmes to move towards these goals.

The Moderator stressed that, though national activities necessarily involve self help, they also depend significantly in many countries on external support. He urged delegates not to lose sight of the critical importance of sanitation, as well as the pursuit of improved water supplies.

There were 15 intervention in the session: from Japan, Cuba, Argentina, Brazil, IWSA/IAWQ, Turkey, the NGO community, UNDP, Antigua and Barbuda, IHE, Jamaica, Germany, Malawi, Guinea-Bissau, Nicaragua.

Japan

The Japanese delegate pointed out that the Conference's aim should be to establish practical steps towards implementing the goals of Chapter 18 of Agenda 21. Chapter 18 makes clear that safe water and environmental sanitation are vital for

protecting the environment, improving health and alleviating poverty. They are also important for bringing personal happiness.

The Political Statement stresses the regulatory role of governments, and Japan has had environmental protection rules in place for some time, as a means of maintaining high quality services. Development of local expertise is seen as very important for the planning and maintenance of expanding facilities. In its bilateral aid, Japan attaches special priority to human resources development alongside construction projects. Outgoing projects in Indonesia and Thailand, for example, include support for water supply and sanitation training centres and courses.

Japan will continue to provide this kind of support, drawing on its own experience.

Cuba

The Cuban delegate reiterated that the Conference objective was to support action to implement Agenda 21, which would include improving collaboration and co-ordination both nationally and internationally. Cuba is committed to implementation of Agenda 21 with special attention afforded to Chapter 18. The Cuban government has reported to the Commission for Sustainable Development (CSD) on basic actions to be taken to the year 2005, and linked this to extensive work undertaken in recent years. This has included development of human resources, creation of a single agency for water resources management, and development of a hydrological net work and infrastructure covering 55% of the nation's water resources.

Water supply coverage statistics for 1993 were: Urban - 94%; Rural - 83%.

Sanitation coverage statistics for 1993 were: Urban - 96%; Rural - 76%.

UNICEF has played a decisive role in rural progress. Urban areas have problems which include low pressures and leakage. Only 30% sewage is treated.

Cuba needs foreign currency to support its action programmes, which have been developed in the national plan following the goals of the World Summit for Children. Recent tightening of the economic blockade has increased the country's aid flow difficulties. Shortage of resources was hampering strategies for maintaining present

coverage. The UNCED commitments offered new hope, and efforts have been made, focusing particularly on local initiatives. The Cuban government is concerned about disappointing people unless new financial resources are made available. The Conference should include mechanisms for mobilising resources, as Rio promised.

Argentina

The Argentine delegate compared the role of the Ministerial Conference with that of the Mar del Plata Conference in 1977. Many problems were the same; some are now worse. Technicians have no difficulties developing solutions, but they need political decisions, and the Ministerial Conference should emphasise that point.

Argentina has a plan which is proving effective and receiving support from the World Bank. About 40% of the country's water and sanitation services are privately managed, and the workers are well integrated into the process of privatisation, which includes international competitive tendering.

A great deal remains to be done and the Ministerial Conference will help to drive the efforts. Argentina has environmental protection laws, backed by strict controls. Two main rivers are now targeted for improvement, with international support. For the future, constitutional reform is needed, turning the Environment Department into a ministry.

Brazil

The Brazilian delegate welcomed the Dutch government initiative in convening the Ministerial Conference as a valuable input to the CSD. The Political Statement and Action Programme will be useful in pointing out the difficulties and possible solutions useful to governments. CSD will focus on cross-sectoral issues, in the spirit of Chapter 18 of Agenda 21.

Countries need support for technology transfer and investment in action programmes. A framework for such support exists in Chapters 33 and 34 of Agenda 21, and the Conference should concentrate on solutions within that framework, with new ideas building on the commitments already established in Rio.

International Water Supply Association/International Association for Water Quality

The representative of the professional associations described the key role that national and international professional associations can play in support of national action programmes. National associations with links to international associations provide networks for information sharing and problem solving and for setting standards and developing licensing systems.

Usually established on a volunteer/non-profit basis, such associations have been effective for some time in industrialised countries. Most industrialised countries have at least one, commonly two, professional associations for water sector specialists from water utilities, consultants and academics. As well as information exchange, they contribute to education and training through workshops and seminars.

IWSA and IAWQ are increasingly supporting new professional associations created in developing countries and urge governments to encourage and support initiatives to establish national associations.

Turkey

The Turkish delegate saw the Ministerial Conference as a fruitful forum, which was important for implementation of Agenda 21. Safe water and environmental sanitation are vital issues, in which both national governments and local authorities have important roles. Integrated management of water resources is a key aspect of sustainable development.

In Turkey's 6th Development Plan (1990-1994), all investment priorities are based on economic, social and environmental criteria. As a result of decentralisation, local authorities share responsibilities for water management.

The international Drinking Water Supply and Sanitation Decade had led to significant progress in Turkey. In 1980 64% of the urban population and 62% of the rural population had access to safe water; in 1993, the figures were urban 97% and rural 85%. During the 1980s, 7% to 17% of government spending went to the water and sanitation sector, but the figure has since declined. In the late 1990s Turkey plans to promote cost-effective technologies, the polluter pays principle, user involvement, and improved operation and maintenance. Planning will incorporate the principle of water as an economic good.

Education is seen as an important element in social mobilisation for water and sanitation development, and dependability of financial resources has to be emphasised. The role of local agencies needs to be supported.

Non-governmental Organisations (NGOs)

The representative of the NGO community emphasised the important role that NGOs play in listening to and representing the voice of the unserved. Women and children are the main victims of inadequate water and sanitation services. They often live far away from safe water sources and suffer physically and emotionally from lack of proper services.

There is frustration that fine words from Rio and elsewhere are being translated into action, sometimes because of a lack of understanding of what is needed. The Ministerial Conference should seek, as a priority, to establish information sharing in and between countries, to clarify principles and goals.

Contrasting situations within countries demonstrate the inequities of the current situation, with excessive consumption existing alongside shortage, and very different standards of service applying in urban and rural areas.

It was regrettable that the GEF has not added water to its mandate. Though water and sanitation are seen as local issues, their links with global issues such as climate change and biodiversity put them into the international arena.

Water and sanitation are high priorities for women and structures are needed to ensure that women's voices are heard in decision-making circles. The issue needs to be democratised with the right to water seen as fundamental.

United Nations Development Programme (UNDP)

The representative of UNDP informed delegates that a written message from the UNDP Administrator was available. UNDP's approaches are based on lessons from field experience. It is now clear that top-down approaches do not work; governments cannot successfully manage remote schemes; and users must influence decisions. This also means that structures are needed to enable users to participate effectively in programmes, removing the types of constraints which, for example have meant that women's willingness to pay for water supply improvements could not be mobilized because the local bank could only handle money for agricultural purposes.

UNDP supports the Ministerial Conference Political Statement and Action Programme and will intensify collaboration with ESAs to support developing countries. UNDP will also support the Water Supply and Sanitation Collaborative Council and the CSD Secretariat.

The UNDP/World Bank Water Supply and Sanitation Programme, which works with UNICEF and ten bilateral agencies concentrate on the development and dissemination of low-cost technologies. UNDP is also supporting partnership approaches in urban utilities.

Capacity building for sustainable development, as outlined in the 1991 Delft meeting needs to be put at the top of the water and sanitation agenda. UNDP is supporting programmes based on the Delft approaches in Peru, China and Bolivia, and sees capacity building as a sine qua non for sustainable development.

Antigua and Barbuda

The delegate from the twin-island state commended that the Ministerial Conference would be important in helping with future water and sanitation development. Antigua and Barbuda have a variety of water supply systems, based on desalination, groundwater, dams and ponds, and water harvesting. Several agencies are involved in water resources management.

The islands have low rainfall (95 cm a year) and water resources management presents problems, including catchment protection, leakage control, water conservation, and inadequate sanitation. Tourism, which is the main basis of the economy creates demand problems, with the peak population six times the normal 68,000.

The islands require more extensive water pollution laws, including quality standards and regulations on use. There is also a need for better solid waste management.

The World Bank and the Organisation of East Caribbean States are supporting improvement programmes, which are being directed towards making better use of existing resources by serving the maximum number of people with sustainable technologies. Antigua and Barbuda endorses the Action Programme of the Ministerial Conference.

International Institute for Hydraulic and Environmental Engineering (IHE)

The representative of the scientific community expressed concern that pressures continue to grow on countries to set priorities for urgent action to improve water and sanitation services. Priorities do have to be set, but that inevitably means that activities which do not acquire priority status may well be omitted. The situation is aggravated by a lack of satisfactory planning techniques and forecasting procedures in many countries. One priority therefore needs to be development of the knowledge base and implementation of appropriate research and development activities to strengthen the planning process.

No quantifiable indicators exist for measuring the sustainability of water resources or of institutions; these need to be developed and tested. In many developing countries the weak link in the sector is institutions, and this is compounded by inadequately qualified water professionals. Governments need to support education and training of professional staff, and the international community has work to do to provide the resources for institutional and manpower development.

Jamaica

The Jamaican delegate noted that the Rio Earth Summit had been greeted with both hope and cynicism. The Ministerial Conference was timely, because action was needed now to convert rhetoric into reality.

Water supply and environmental sanitation are important issues in Jamaica and are clearly linked to the country's economic situation. Water resources problems arise from desalination through over-abstraction and reduced flows and from industrial pollution.

Conflicts are rising over the use of scarce water resources, and new legislation seeks to address these issues; the old legislation encourages wasteful use. Jamaica has recognised that institutional development is important, and has started a process of decentralisation, with decision-making devolved to local level. New attitudes are not easily accepted, but partnerships with communities are expanding. The government also seeks to expand its partnerships with external support agencies.

Jamaica sees the Action Programme as a great help in helping to direct future activities, and hopes that its realistic output targets will be backed by real commitments.

Germany

The German delegate stressed the importance of cross-border cooperation in water pollution control. The Rhine Action Programme demonstrates that agreements among riparian countries can be effective in cleaning up international rivers. The Rhine Commission is an example of an international body able to assist countries in reaching agreements and to prepare research programmes and treaties for approval of member states.

As a result of the Rhine Action Programme, the river has recovered, with benefits for all users and for the local ecology. Similar models are being developed for the Oder and the Dabube, and the Rhine Commission is willing to provide information and advice to other countries seeking to introduce transboundary management of water resources.

Malawi

The Malawi delegate said that Malawi attaches importance to the Ministerial Conference and recognises the value of the output. Malawi has adopted the integrated approach to water resources management and has implemented vigorous campaigns to mobilise community participation in water and sanitation programmes. These have been well received and communication is effective and enthusiastic.

Ministries involved in rural water supplies interact continuously with the beneficiaries involved, and the government is well on the way to becoming an enabler rather than a provider of services. A village maintenance system for boreholes serves many people.

Malawi is proud to be moving towards the goal of clean water for all and applying the principle that water is an economic good. The country has an active National Environmental Programme which includes a national water development programme and is being supported by the World Bank. The role of donors is important, and Malawi is seeking to extend its collaboration with other external support agencies.

Guinea-Bissau

The Guinea-Bissau delegate reported that the country progressively developed a water resources strategy framework from 1987 to 1991, with UNDP support. The framework incorporated the outcome of the 1990 consultations in Abidjan and New Delhi.

As one of the poorest countries in the world, Guinea-Bissau depends on outside support for sector development, and uses the Logical Framework Analysis method for structuring its activities and coordinating support.

The National action programme developed after the Africa Children's Conference shows investment needs from 1993 to 2000 of \$5.2 million for water supply and \$4.2 million for sanitation. In the past, progress in social sectors like water and sanitation has been strongly linked to the national debt burden.

The national sector strategy has key components which must be included in any water and sanitation programmes. They include: national capacity building; reduction of external dependency; institutional strengthening; partnership approaches, including gender perspectives; and sustainable use of water resources.

In the past, schemes have aimed at fixed coverage targets. Now, the aim is to integrate water and sanitation into water resources management programmes and to ensure that sanitation accompanies water supply improvements. Guinea-Bissau recommends that external support agencies should themselves link sanitation automatically with water supply.

Collaboration and communications are important parts of the strategy; the challenge is to get the institutional framework correct. Guinea-Bissau is initiating a communications project, using the Information, Education and Communication (IEC) tools developed under the auspices of the Water Supply and Sanitation Collaborative Council. The country endorses the aims of the Africa 2000 Conference and the Political Statement and Action Programme of the Ministerial Conference.

Nicaragua

The Nicaraguan delegate pointed out that lack of financial resources can be more critical than lack of water resources. Nicaragua has enough water for many years to come, but civil war swallowed up all financial resources in the 1980s and economic constraints continue to hamper progress in water supply and sanitation. Currently 60% of the population has access to safe water and 20% have satisfactory sanitation facilities. Migration to urban areas caused by political instability has put extra pressure on sector agencies.

Since the Rio Earth Summit, Nicaragua has sought to decentralise, with legislation transferring authority to local agencies and supporting privatisation. A National Committee for Water Resources coordinates activities of separate ministries. The national action programme includes components for institutional strengthening, combatting water losses, and human resources development. Other post-Rio initiatives include moves towards self-financing and the implementation of sanitary education programmes and public awareness programmes.

In conclusion, the Session Chairman thanked Minister Alders and the Dutch Government for their contribution to the implementation of Agenda 21.

(Jordan) reminded the audience about the greatest difficulties to solve problems of water in ecologically fragile areas such as the Middle East as arid zones. Mentions the support for the action program and the need for financial support for its implementation.

All sessions of the Ministerial Conference took place between 10:00 hours and 13:00 hours in the mornings, and 15:00 hours to 18:00 hours in the afternoons. An exception to this was on the afternoon of Wednesday, when a short and general discussion on the Conference Output Document took place from 14:30 hours till 15:30 hours. During this session, the results of the Senior Officials Meeting were conveyed to the assembled delegations by its chairman Mr. G. Wolters, and the Chairman of the Drafting Committee Professor W. Kakebeeke.

Following this, the Conference Document, comprising a Political Statement and an Action Programme, was agreed by consensus and unanimously adopted. Closing statements were made by Minister Alders and, by special request in view of the forthcoming role of the conference documents at the UNCSD meeting in May of this year, also by Minister Töpfer of Germany.

At 15:30 hours, a Press Conference was held to announce the outcome of the Conference, to distribute the Conference Output Document, and to inform the World of some of the more important consequences of the Action Programme.

Copies of the Conference Output Document in English (the official version), French, Arabic, Chinese, Russian, and Spanish, may be found later in this volume.

During the closing stages of the Conference, a brief questionnaire was circulated to all delegations asking for impressions on the output of the Conference. A summary of the results of this survey is given in an appendix to this report. From this survey and more general observations, it is clear that the outcome of the Conference exceeded the initial intentions and expectations of the participants. The topic of drinking water and environmental sanitation has been given greater political awareness, the UNCED Agenda 21 chapter 18 has been made more specific, and the results of this Conference went forward to the UNCSD meeting in May.



**Speech at the Opening of the Ministerial Conference, by Mr. Hans Alders
Minister of Housing, Spatial Planning and the Environment of the Netherlands**



On behalf of the Government and the people of the Netherlands, I extend to you a very warm welcome. Many of you had to travel long distances to be present these two days and I want you to know that I deeply appreciate your contribution to this Ministerial Conference. As you know, today is World Water Day, one of the reasons why we organised this Ministerial Conference on Drinking Water and Environmental Sanitation in this period. Today many children will celebrate World Water Day here in Noordwijk. I want to express my hope that also the adults can mark World Water Day by producing a clear Political Statement and a concrete Action Programme. People need action. Governments don't solve problems, people do. Building the capacity of men, women and communities to solve local problems is a major step towards effective water and environmental management. But to enable them to solve these problems, we as governments have to give them the tools to do so.

This Conference is well planned because it is World Water Day, but it is also a crucial moment from an environmental point of view. Previous conferences have done much necessary groundwork to establish agreement on the principles of action. During the Senior Officials Meeting we often mentioned the meetings in New Delhi (September 1990), Dublin (January 1992) and the United Nations Conference on Environment and Development in Rio de Janeiro (June 1992). We try to learn our lessons from the past. Agenda 21 has made very clear that water supply and sanitation problems are no longer technical; they are very largely political.

Much has been achieved in water and sanitation since the 1977 Mar del Plata Conference, the initiative to the Water and Sanitation Decade. But we still have to translate the lessons from the past into implementation in the future. There are two versions of the future. In one, water and sanitation problems are overcome, and sustainable development becomes possible. In the other, they are not tackled. The prospect is conflict, disease and political instability. We have to acknowledge that drinking water problems are global problems, with political consequences.

There is an old proverb: we never recognize the worth of water until the well is dry. That is exactly the current situation. Communities may vote with their feet if they believe they have to pay too high a price for clean water, without a guarantee that the water is indeed clean!

Not one of us will or can deny that freshwater as a whole ties in with all human activity in one way or another. Water also is an important - but vulnerable - part of the hydrological cycle. But the most vulnerable part is without doubt the availability and supply of drinking water.

By the end of the 1990's, many countries will have only half as much easily accessible water as they had in 1975!

At the same time, demand from agriculture, industry and domestic users is rising. The very availability of freshwater is at risk. Therefore, we decided to focus this conference on drinking water, while keeping a close eye on the freshwater aspects in relation to the environment, health and economy.

The purpose of this Conference is simple: we need a triple approach: Concrete, Coordinated and Concentrated. By concrete I mean gaining agreement on the Action Programme. By coordinated I mean increasing the extent of collaboration at all levels: local, regional, national and international. By concentrated I mean accepting that governments would achieve much more by fostering cooperation and the participation between governments, organisations and the private sector.

To put these three "C's" in practice, we need to generate public and political systems awareness, realistic targets, efficient delivery systems, mobilisation of available resources and the transfer of technology. Adequate financial resources need to be mobilised, within the framework of Chapter 18 of Agenda 21, to execute such an Action Programme.

Only when we can reach agreement on such an approach, will we be able to deal with the problem in an integrated way. Governments have a vital role to play in leading this process, in clearing obstacles out of the way and in creating partnerships and the legislative and administrative framework for change. But to realize this during the Ministerial Conference we also need the contribution of the international organisations and the NGOs, to ensure that we can achieve exactly what we expect of it, and that we can make a more focused start with the implementation. All these organisations are present here, have done their own preparation and made their own suggestions. Let's use these suggestions whenever possible, because we all know: we do not have a moment to lose!

The Senior Officials Meeting, that took place just before the Conference, has done a marvellous job, although they did not manage to finish all the drafting within the specified time. There are still brackets in the draft documents. That means that there is a lot of work left for us as ministers to do, but we are used to that since UNCED - where for two weeks there was one comma in brackets.

We have to focus our attention on three key areas, where fundamental changes of approach could build on the already realized achievements:

- improving the effectiveness of sector investments;
- maximising the mobilisation and use of financial resources;
- increasing the extent of collaboration at all levels.

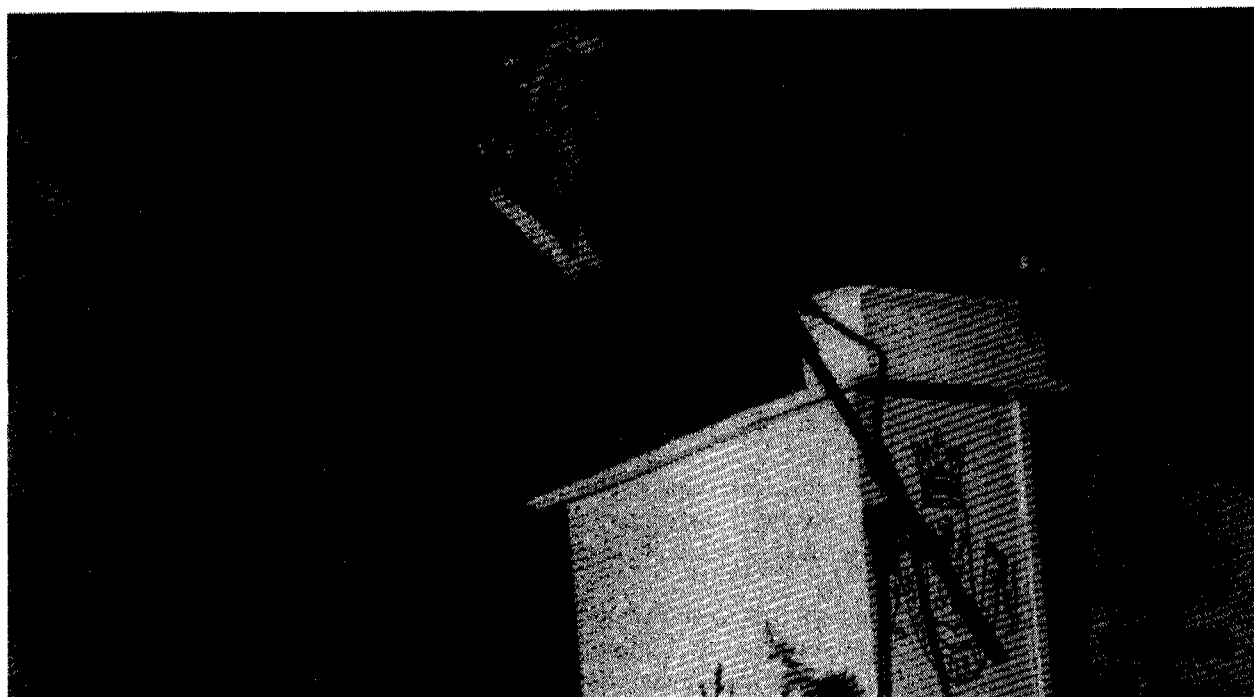
All three keys have been discussed during the Senior Officials Meeting, without yet being able to reach agreement. In my opinion it is the responsibility of the ministers present here, to deal with these items and reach an agreement. Not on more beautiful words, but on more concrete proposals as to how to handle these problems. That is why invitations were extended to you as ministers responsible for the environment or for drinking water. Together, we can play a vital role in realizing fundamental changes of approach.

Finally, the task we have taken on our shoulders here in Noordwijk is an enormous one. We not only have to produce a variety of "tools", that will help us implement all those beautifully formulated 'principles', 'concepts' and 'approaches', but we also have to take some first steps, indicating that we are taking our Rio commitment very seriously, and we are running out of time. In the Netherlands we have a proverb meaning "the water flows over the dike where it is lowest". In other words, disaster strikes the poorest first. If further action is not taken, the cracks now spreading across the dike will widen and cause a flood.

This is certainly true of water and sanitation, where the brunt of the consequences of inaction are being felt most by the marginalised sections in our society. That in itself provides a very strong reason for us to act. We are here to discuss the tools we need for concrete and coordinated action. Let us use these tools to build a sustainable future for ourselves as well as for our children. If we fail to do so, all the water in the sea will not wash out our shame!

I wish you all a very good Conference and hope we will be able to show the first step on the way to safe water for everybody, wherever they live.

**Keynote Speech by Mrs. E. Dowdeswell,
Deputy Secretary-General UNEP**



Mr. Chairman, distinguished ministers and delegates;

Around the world today, approximately 25,000 people will die because of bad water management. The same number will die tomorrow, the day after that and the day after that. Twenty-five thousand people -- a number equal to the population of Noordwijk.

As a catastrophe, it is equivalent to 75 jumbo jet crashes daily, claiming more than 9 million lives a year, half of them child victims of water-borne-illness: cholera, malaria, dysentery and parasitic diseases. And yet the subject of freshwater is too often crowded off the world media agenda.

Water is the source and substance of life. Public concern about it has been one of the main causes of an unprecedented level of environmental awareness and support for environmental action.

This precious element, the underpinning of our economic well-being, is an asset inextricably linked to our health. Improving water quality is at the top of the public's environmental agenda in both the developed and the developing world. And the day is not far off when water supply will be as much a top of mind concern in the North as in the South.

Like so many problems, those related to water are very largely connected with public education and understanding.

Water quality problems, for example, are too often thought of in terms of point-source polluters along the banks of rivers and lakes. In fact, a major portion of the pollution problem is brought by the wind and contributed by urban and agricultural run-off.

Thus we are called on to address water quality issues in a comprehensive fashion; to recognize it as a water pollution problem, an air pollution problem and a land use problem.

With respect to water quantity, much of the world has yet to recognize just how precious little useable quantities there are. A mere 1% of all water on the planet is readily available for use by humankind. The rest is either saline or buried underground. And some 90% of the planet's freshwater is locked in polar ice.

Demands made on the tiny fraction available are enormous: for drinking, washing, watering crops, transporting goods and powering industries.

And annual demand continues to soar. The world now uses roughly 4,500 cubic kilometres of water annually, triple the demand in 1950 and nine times that of 1900. Demand is expected to have doubled again by 2050.

Particularly acute are the problems of the South, resulting directly from a handful of interrelated phenomena: population growth, increasing contamination and high debt loads coupled with escalating costs retarding investment in water source development and conservation.

Some 26 nations are today classified as water-scarce: countries in which shortages place severe constraints on the growing of food and economic development.

Most water-scarce countries are in Africa, where population growth threatens to exacerbate the problem greatly. The world's most concentrated region of water-scarce countries, however, is the Middle East, and fears exist that tensions over water in the 1990s could detonate political tensions there.

Indeed, water management is an issue much related to global peace and security as it is to health or economics. Reliable access to water in many dry countries is already a national security issue. Civilization's history includes many violent clashes rooted in the control of water. And the threat to international peace is only likely to worsen as populations continue their exponential growth and with the advent of symptoms of global warming, causing both a higher rate of demand for water and perhaps a diminishing supply.

Every place on Earth is affected in one way or another by these issues. In China, India and the United States, competition between urban and rural users is developing rapidly for access to limited water supplies.

Many areas use groundwater reservoirs at obviously unsustainable rates. According to the Worldwatch Institute, one quarter of the world's largest aquifer in northwest Texas has already been drawn down. Saudi Arabia meets 75% of its water needs drawing on fossil aquifers now predicted to run dry in just 52 years. Water tables in Beijing have been dropping one to two per cent per year and a third of all wells are now empty. By the year 2000, Beijing's water demand will exceed supply by as much as 70%. And in Mexico City, just 20 to 50% of all water pumped is replenished by nature.

All member states of the United Nations designated the 1980s as the International Drinking Water Supply and Sanitation Decade. Unfortunately, any gains made during the Decade were more than offset by increasing population growth, misuse and pollution, urbanization and desertification. today, some 1.3 billion people still lack access to safe, clean water and 1.7 billion have inadequate sanitation facilities. By the year 2000, 900 million more children will be born in regions without these essential services.

The need for action is as urgent as it is obvious.

I believe the priority areas in which work must be concentrated are the following:

- * To obtain the funding needed for genuine reform and improvement, we have to raise the profile of freshwater issues. At the same time, we have to change public attitudes towards water to better reflect its value.
- * International institutional authority and coordination must be strengthened; our approach to water policies has been far too fragmented;
- * We require criteria for measuring our progress in implementing the recommendations of Agenda 21, including targets, timed-action programmes and performance indicators;

- * Mechanisms are needed for negotiation and conflict resolution related to shared water resources;
- * We need strategies for sharing future shortages and apportioning responsibilities for floods;
- * International groundwater laws and principles are required;
- * We need cost-effective strategies for training water professionals;
- * We need to understand far better the consequences of water problems, the extent to which we cause them and the effects of our traditional practices. Damming and diverting water has caused major upset to the world's deltas, wetlands, lakes and aquatic habitats, imperiling countless species;
- * Finally, hydrological data on shared water resources must be acquired and disseminated to all affected parties. The use made of shared resources by one party must be apparent to all.

This final point is essential. The state of the world's water resources must be better recorded and appreciated. Monitoring efforts by UNEP's Earthwatch office and GEMS, the Global Environment Monitoring System, in association with the World Health Organization and UNESCO, have to be greatly augmented. Just as data warning of the ozone hole lead to public concern and significant and urgent action worldwide, we need the counterpart data for water.

UNEP was recently designated focal point for water within the United Nations system, an exciting and challenging new mandate.

UNEP and the United Nations Centre for Human Settlements (Habitat), which I also have the honour to direct, are giving highest priority to putting into practice necessary policies and strategies for integration of freshwater management concerns at the urban and watershed level.

A report detailing these activities is available to all delegates. They include a series of regional workshops on the implementation of Chapter 18 of Agenda 21. The prescription for action related to water outlined in this Chapter of Agenda 21 will have different relevance in different regions of the world, based on the varying needs and capabilities of each. UNEP is interested in assessing these differences and their implications. The first workshop was held just last week in Santiago, Chile, in cooperation with the Economic Commission for Latin America and the Caribbean.

Habitat has also restructured its activities to better assist countries in the application of management practices that integrate water concerns.

As well, a key product of the 1996 United Nations Conference on Human Settlements (called Habitat II) in Istanbul will be a statement of principles and action plan for improving conditions in human settlements in an urbanizing world, including the sustainable management of water and sanitation.

I have noted a number of valuable suggestions in the synthesis document for this conference, including a global water resources assessment, the establishment of an award for environmental achievement and a ministerial advisory/promotional panel for conference follow-up.

The GEMS/Water Programme, long involved in regional and sub-regional water assessment work, will have the lead at UNEP for the scientific global resources assessment. It will also assist in developing the Code of Conduct for integrated water resources management, called for in the strategy document.

UNEP regional offices are offered as clearing houses to provide access to the accumulated information and data to all interested parties. And UNEP's International Environmental Technology Centre (IETC) is ready and available to serve as a source of necessary training and relevant technology transfer.

UNEP would be pleased to help administer the Noordwijk Award outlined in the strategy document. And finally, should ministers accept the proposal to create a panel to pursue conference follow-up at the political level, UNEP is prepared to extend its experience and resources to provide the necessary Secretariat support over the short- and long-term as desired.

Ours is a relatively small organization dedicated to capacity building, catalysing international action and sensing the world's changing environmental condition. UNEP must take every advantage of the resources available through its partners -- including each of the governments and organizations represented here.

I believe that together we must serve notice on the world this week in Noordwijk that the need to make water management a major global priority is now urgent.

Humanity has too rarely in history heeded the authoritative warnings of an environmental catastrophe, acted decisively through formal international agreement and committed itself to still further action as science continues to point the way. That occurred in the case of ozone depletion. We must work to help that occur now in connection with the looming water crisis.

I thank and congratulate the Dutch Government, most especially Minister Alders, for organizing and hosting this important conference. The leadership provided by the Netherlands in the field of environment continues to be exemplary. I thank all of you here for your support of UNEP and for your work on behalf of our common future.

**Keynote Speech by Mr. James P. Grant
Executive Director of the United Nations Children's Fund (UNICEF)**



**"The Mid-Decade Water and Sanitation
Goals can be achieved by 1995"**

I am delighted and honoured to participate in this important gathering. On behalf of UNICEF and the World's children, I would like to warmly commend the government of the Netherlands for hosting this international conference on drinking water and environmental sanitation. It is, actually, the first global ministerial meeting exclusively on water and sanitation. So the initiative is most timely, and what better place is there to discuss these critical issues than the Netherlands -- this land of dikes, polders, and canals, where water management has developed into a fine art and environmental protection is fast becoming a national obsession!

Our hosts have brought together many of the world's "movers and shakers" in the field of water, sanitation, and environment -- government ministers responsible for the sector; international and bilateral development agency heads and officials; leading NGO representatives, and some of the world's most distinguished experts. Together, we have an opportunity that must not be squandered: the opportunity to accelerate efforts in a sector that is uniquely positioned to contribute synergistically to progress across the entire spectrum of development activities -- and to do so just when momentum is growing for a major leap of human progress by the end of the century.

As government ministers and officials responsible for the water and sanitation sector, you find yourselves at the strategic convergence point of at least four building-blocks of progress: first, what you do every day brings the goal of Health for All by the year 2000 that much closer; secondly, your efforts are key to poverty alleviation and sustainable development; third, you are on the frontline of the struggle to protect and preserve our fragile environment; and, lastly, there is an increasing awareness of the centrality of progress in the area of water and sanitation to the advancement of women, especially rural women. Many of you are also responsible for irrigation and management of scarce water resources that are essential for increasing food production and improving nutrition.

These mutually-reinforcing roles mean that you work along the cutting edge of some of the central dynamics of our times, a fact that deserves much greater recognition by politicians, financial planners, the public and the media. As part of its advocacy work, UNICEF is committed to raising awareness of the importance of your work and the need to integrate the sector more fully into development planning, financing and programming.

I will go into this a bit more later on, but I want to say at the outset that new developments in the field make rapid progress in water and sanitation a real possibility. There has been a rethinking of policies and strategies for extending coverage; the cost of the technology for supplying drinking water and adequate sanitation to rural and peri-urban communities has dropped considerably over the last decade. Community financing and cost-recovery schemes are demonstrating that people are willing and able to shoulder a fair share of the economic burden. Experiences in India, Bangladesh, Burkina Faso, Sudan, and Honduras, among other countries show that even nations with low per capita GNP can make rapid gains in this sector.

This being the case, the most critical factor for accelerating progress is now political will. Serving the unserved, reaching the unreached is possible and affordable; now what's needed is courage, vision, and leadership to make water and sanitation a national and global priority.

In our latest State of the World's Children report, we describe the inter-action of the problems of poverty, population growth, and environmental degradation as the "PPE" spiral. These three mutually-reinforcing problems form a downward spiral in which population growth fuels poverty and environmental damage; poor environment leads to greater poverty, and so on. Instability and conflict often follow in its wake. The work you are doing to provide drinking water, adequate sanitation and a healthy environment for all is critical to breaking the PPE spiral and giving a boost to peaceful, sustainable human development.

A promising new approach is being developed to deal with environmental problems at the community level, based on progress made in the field of primary health care. It is called Primary Environmental Care (PEC) and combines efforts to empower communities to meet their basic needs for health care, nutrition, family planning, water and sanitation, with environmental education and action. Water is the ideal entry point for the PEC initiative, since water is usually the most keenly felt need at the community level, and collection of both water and firewood consumes an inordinate amount of women's time and energy that could be spent on caring, self-advancement and gainful employment.

Meeting people's basic need will vastly accelerate solutions to the major problems threatening humankind on the threshold of the 21st century. Our experience in the field and on the advocacy front has shown us that children can be a powerful lever for development as a whole.

This was recognized by the world leaders who attended the historic World Summit for Children in 1990. They agreed on a holistic approach to development, child- and human-centred, and committed themselves to achieving 27 measurable goals for radically improving the lives of children, women and families by the year 2000. Universal access to safe drinking water and sanitation figures prominently among the goals. To date, a total of 156 heads of state and government have formally pledged to achieve the goals. Over 100 countries have issued or drafted National Programmes of Action outlining the programmes and resources the effort will require. Almost 90 per cent of the developing world's children live in countries that have developed and started implementing such plans. This is the first time since the dawn of history that humankind has begun to plan and act in concert, embracing common goals to benefit all children.

The momentous ethical shift this implies is reflected, also, in the Convention on the Rights of the Child, which came into force in 1990 and has already been ratified by a record 156 countries. Only 34 countries have yet to ratify (we hope that the Netherlands, which has already signed, will go on to ratify the Convention in the near future). This comprehensive "Bill of Rights" for Children has a good chance to become, by the end of 1995, the first truly universal law, as called for by the World Conference on Human Rights in Vienna last year. It is an extraordinary ethical-legal instrument, for it codifies for the first time the comprehensive obligations of states, parents and civic society toward children. One of those obligations, spelled out in Article 24 of the Convention, is to provide children with access to clean drinking water and environmental sanitation.

All the goals for children set by the World Summit for Children were later endorsed by the Earth Summit and incorporated into Agenda 21. UNICEF believes that the goals for women and children constitute the most immediately "do-able" and affordable core of Agenda 21, and that their speedy achievement would give a major boost to sustainable development.

Least you think we are making too much of papers and promises, let me assure you that we are already seeing concrete results in the field. As we explain at length in the 1994 State of the World's Children report, and in our new annual statistical publication, Progress of Nations, many of the traditional enemies of children are now on the run -- vaccine-preventable diseases, malnutrition, ignorance, among others.

The Child Survival and Development Revolution has saved more than 20 million young lives since its inception in the early 1980s, and it is now averting the deaths of approximately four million children per year. Prospects have never been better for accelerating this momentum. Thus, the heads of state and government of most developing countries have agreed to intermediate, mid-decade goals to be reached by end 1995. Their achievement would mean saving an additional 2 million child lives annually, as well as the virtual elimination of the greatest cause of preventable mental retardation -- iodine deficiency -- and of one of the two principal causes of blindness among children -- vitamin A deficiency.

The task ahead remains formidable -- but a good start has been made.

The same thing can be said about water and sanitation; though we have a long way to go, we are off to a good start. Real progress was made in the 1980s, even though the targets of the International Drinking Water Supply and Sanitation Decade were not met. Some 1.3 billion people gained access to water over the decade, and 700 million obtained adequate sanitation. In Africa -- the continent of great need -- access to clean water increased impressively over the 1980s, bringing an additional 170 million people within reach of some of improved wells, handpump or deep tube well. In 1991-1992, in response to the worst drought since 1947, seven countries in southern Africa mobilized a range of national efforts with such success that people were totally protected against famine. Modern techniques, appropriate technologies and higher levels of competition have made it far easier to find and supply water and provide adequate sanitation at an affordable cost. Today, 70 per cent of the developing world's population has access to clean water and 51 per cent to proper sanitation, up from 46 per cent and 39 per cent, respectively.

But as you know, approximately 1.3 billion people in the developing world today still lack safe drinking water and 1.9 billion have no sanitary facilities. About a third of the developing world's children remain without access to clean drinking water and half of them lack adequate sanitation. The poor in marginal urban and rural areas pay a disproportionate share of their income for water services that are irregular, inconvenient, and often of dubious quality. As I mentioned earlier, finding and transporting water absorbs far too much time and energy -- especially of women and girls -- in rural areas. The lack of safe water and adequate sanitation continues to undermine the health and nutritional security of the world's poor, with a disproportionate burden being borne by children and women. Of the 37 major diseases in developing countries, 21 are water and sanitation related. Poor health, in turn, lowers school performance and labour productivity. And so the traditional poverty cycle is fuelled, in great measure, by lack of water and sanitation.

What needs to be done to close the shameful water and sanitation gap? Clearly, "business as usual" will not do it. If the same policies and priorities for development in the 1980s are applied to this decade, the world would not even approach the goal of universal coverage by the year 2000. We estimate that some 770 million people would remain without safe water and 1.9 billion without proper sanitation. Progress in health, nutrition, environmental preservation and education would most certainly be compromised.

Based on UNICEF's more than 40 years of providing drinking water and sanitary facilities to people in need -- currently we have water and sanitation programmes in over 90 countries -- I would like to contribute the following suggestions or challenges to the deliberations of this important conference:

* First, in order to even have a chance at achieving the year 2000 goal of universal access to safe drinking water and adequate sanitation, we must accelerate efforts to reach the mid-decade goals that have been established. By 1995, countries should increase water supply and sanitation so as to narrow the gap between the 1990 levels and universal access by the year 2000 of water by one-fourth and of sanitation by one-tenth. Also, the year 2000 target for eliminating guinea-worm disease has been advanced to 1995. Achieving the mid-decade goals -- which have been endorsed by the WHO-UNICEF Joint Committee on Health Policy, by the UNDP administrator in a letter to all Resident Representatives, and by the WHO Director-General and the Executive Director of UNICEF in a joint letter to all heads of state and government -- will create capacity, confidence and momentum toward reaching the year 2000 target. To achieve the mid-decade goals, we will need to provide water to an additional 193 million people and sanitation services to an additional 190 million.

* Second, a fundamental restructuring of the way governments and donors apportion resources is clearly required. Most governments and donor assistance have focused on providing water and sanitation to middle- and upper-income urban populations. More than 80 per cent of the \$10 billion spent each year on water and sanitation in developing countries goes to high-cost, hard to sustain technologies, including household water and sanitation connections costing more than \$200 per capita. The water and sanitation needs of the poorest of the poor continue to be neglected. A major thrust must be made to increase water supply and sanitation coverage in the rural and urban low-income population. Our watchword must be: "Provide some for all rather than more for some."

* Third, the water and sanitation effort must not be a lonely sectoral undertaking isolated from overall social and economic policy. It must be seen as an integral and vital part of a multi-sectoral push to reach concrete goals for the benefit of the nation. That is why we place a great deal of emphasis on visible political leadership from the top and active mobilization of the population, which were keys to the success of immunization efforts. The sectors needs to move from its current hardware orientation to a people-focused approach that emphasizes outcome as reflected in improved health and socio-economic benefits, and in sustained maintenance, with the participation of the community. The World Summit for Children National Programme of Action should serve as a focus for national water and sanitation efforts.

* Fourth, determined actions for improving cost-effectiveness must be taken. We now have appropriate technologies that cost less today than in the 1980s, mainly because of economies of scale. Experience especially from Asian countries has shown that improved cost-effectiveness is feasible, allowing coverage of a large number of people with limited resources. Today it should be possible for most rural villages and peri-urban communities to bring the cost of supplying safe water and sanitation down to below \$30 per capita -- and even lower where grassroots volunteers are heavily involved in installation and maintenance of systems.

* Fifth, experience has shown that governments need not -- indeed, cannot -- bear sole financial responsibility for extending water and sanitation services. However, they need to play a crucial role in funding and in motivating others to contribute. Rich and poor alike are willing to pay for water, but under the status quo the better-off are often subsidized while those least able to afford it devote as much as 40 per cent of their income to purchasing water that is far more expensive and of substandard quality. We agree with WHO, which has stated that no family should have to pay more than 5 per cent of their income on water and sanitation. But there is ample scope for local management and financing that does not place an undue burden on the poor, but rather contributes to a sense of "ownership" and builds sustainability. We need to promote cost-recovery schemes in water and sanitation similar to those now achieving considerable success in the area of primary health care in Africa -- under the rubric of the Bamako Initiative. If there is to be a significant increase in coverage, a greater part of the cost must be borne by the consumer and far greater emphasis must be placed on technologies that service more people for less money. At the same time, much can be done to reduce the considerable waste and inefficiency that characterize the sector in most countries.

*** Sixth, integration of services and "piggy-backing" of interventions are absolutely necessary if we are to optimally employ our limited resources to accelerate progress. Only by clustering goals and taking advantage of every opportunity -- every appropriate venue -- for multiple interventions can we get the kind of acceleration of progress that is required. Mexico, for example, has developed a successful programme combining low cost technologies for water and sanitation with ORT promotion and hygiene education programmes through community sanitation. There is a gradual shift away from top-down approaches toward more decentralized, participatory and integrated programmes.**

*** Seventh, monitoring systems must be strengthened to provide accurate and timely information to guide policy and programme. Currently, because of weak monitoring systems, most developing countries lack the accurate and up-to-date data that are so important to our human development efforts. Without solid monitoring mechanisms, accountability is undermined all along the chain of responsibility. When such mechanisms are in place top political leadership is able to identify problems early on and make mid-course corrections so vital to any complex and dynamic social undertaking. What seems to be a mere question of statistics is, in fact, a policy issue of the greatest import.**

*** Eight, sanitation should become a national priority. Lack of resources is not the only reason for slow progress in sanitation coverage. Because they involve changing people's behaviours, low cost sanitation programmes are far more difficult to implement than water programmes. But experience shows that progress can be accelerated when the mass media and traditional channels of communication, when the schools and other community institutions are mobilized to promote more sanitary means of waste disposal. Children and youth have shown themselves to be enthusiastic activists for the environment -- they can play a crucial role in bringing about a new sanitation consciousness as well. Women and girls -- who have the most to gain from improved water and sanitation services - often turn out to be the most effective organizers for change.**

These are some of UNICEF's thoughts on how to accelerate efforts in this sector in the 1990s. The developing countries are responding to the lessons of the 1980s and are now taking the lead for improving cost-effectiveness and impacts in the development process. We are seeing this in the water and sanitation area, and it would be a shame if these encouraging efforts were not met with resolute and generous support on the part of the industrial countries. Donor support is absolutely critical at this stage to keep the momentum going.

Most developing countries are prepared to restructure their existing development budgets and provide an additional \$3 billion per year, globally, toward extending low-cost water and sanitation coverage where it is most needed. The challenge is to ensure that the donor community provides the additional \$1 billion per year that will be necessary for the rest of the decade to actually achieve the goals.

It must be said that the Netherlands have shown the way. Not only has our host country consistently provided high per capita ODA to the world's poorest countries, but it has given priority to social infrastructure, within which the water sector has long received special emphasis. What is more, the Netherlands is spearheading the crucial shift toward low-cost and appropriate technologies to satisfy unmet needs in rural and peri-urban areas. This is an example worth emulating.

Finally, in the 1990s we are seeing the beginning of a new approach to development, and the beginnings of a new effort with respect to children. The international community is committed to the achieving the goals set at the historic 1990 World Summit for Children, there are goals on universal access to clean water and sanitation by the year 2000, which were reaffirmed and incorporated by the Earth Summit in 1992 in Chapter 18. Over 100 countries have now completed and implemented national programmes with major water and sanitation components to achieve the mid-decade and year 2000 goals, and hundreds of states and municipalities have their own state and municipal plans and actions to achieve these. The Convention on the Rights of the Child includes clean water as a right under Article 24, and there is a convention that has now been either signed or ratified by 171 countries, and which is well on its way to becoming the first universal law of humankind. All these point to what can be accomplished when there is a broad consensus on common principles and goals.

We at UNICEF believe that meeting children's basic needs can jump-start the broader process of sustainable development, including progress in water and sanitation. Clearly, looking ahead to the World Social Summit, which is just a year ahead, we have a tremendous opportunity to leverage forward on the mid-decade and year 2000 goals.

I have tried to communicate a sense of hope, a sense of what is realistically do-able in the immediate future. I am sure this conference will recharge our batteries for accelerated action. As we go about our work, let us not forget for a single instant that 13 million children will die again this year -- 35,000 again today -- of causes, including poor water and sanitation, that are now largely preventable. Let us not forget this obscenity as we go about our daily lives, as we set our priorities, as we allocate resources, as we relate to our neighbours and families, as we relate to ourselves in our quiet moments of self-reflection. The world's children are looking to us for something better, something that will give them -- and us all -- a better future. And they cannot do it without water and sanitation.

Thank you.

**A MODEL FOR DECADE FINANCING OF RURAL & PERI-URBAN
WATER SUPPLY & SANITATION***

1990 - 2000
(U.S. \$ billions)

1. FINANCIAL RESOURCE REQUIREMENTS

	Total (1990 - 2000)	Annual
Total Costs ¹		
Water supply	32	3.2
Sanitation	20	2.0
Social mobilization	<u>2</u>	<u>0.2</u>
Total	54	5.4
Estimated current investment level ²	<u>17</u>	<u>1.7</u>
Additional required	<u>37</u>	<u>3.7</u>

2. SOURCES FOR FUNDING GOALS

	Annual
Domestic	
2.1 Re-structuring of the sector ³	
(i) Urban to Rural	0.5
(ii) Savings from leakage control	0.5
2.2 Cost-recovery	
(i) Rural sanitation (80% of costs)	0.9
(ii) Peri-urban sanitation (25% of costs)	0.2
2.3 Additional Government Financing	0.5
External	
2.4 Additional donor funding required	<u>1.1</u>
TOTAL	<u>3.7</u>

¹ Costs are for Africa, Asia and Latin America, where maximum financial resources are required.

² Estimated from WHO (1992) International Drinking Water Supply and Sanitation Decade (End of Decade Review) based on investments in the 1980s. The assumption is that this level of investment continues.

³ The reallocation from the urban to rural areas is assumed at 10 per cent of 1980s urban investment and savings from leakage control at 20 per cent of investment in water supply.

**Keynote address by Mr. I. Serageldin
Vice-President for Environmentally Sustainable Development
of the World Bank**



**WATER SUPPLY, SANITATION AND ENVIRONMENTAL SUSTAINABILITY:
THE FINANCIAL CHALLENGE**

TABLE OF CONTENTS

THE SECTOR CHALLENGES

The "old agenda" -- the household service agenda
The emerging "new agenda"

THE FINANCIAL CHALLENGES

Question 1: What do services cost and how are the costs changing?

- * The old agenda
- * The new agenda

Question 2: Should public spending be increased?

- * Public spending on the sector has increased substantially
- * The large 'hidden' water economy
- * Perhaps public expenditure on the 'old agenda' has been too high?

Question 3: What are the keys to developing a financially sustainable sector?

- * How sanitation, sewerage and wastewater management should be financed
- * How water supply services should be financed
- * Some common (erroneous) beliefs about the new approach to financing

CONCLUSIONS

It is my pleasure and privilege to address this important meeting. I commend Minister Alders and the Dutch Government for convening a conference on what is probably the most immediate set of environmental issues facing billions of people in developing countries.

The Sector Challenges

In their opening remarks and keynote speeches today, Minister Alders, Mr. Grant and Ms. Dowdeswell have accurately and compellingly described the reason why this gathering is so important. I have been asked to focus on issues of financing. In doing this it is informative to distinguish between the two challenges we face: First there is the 'old agenda', of providing all people of the world with adequate water supply and sanitation services. Second, there is the 'new agenda' which requires that much greater attention be paid to ensuring that our use of water resources is sustainable both in terms of quality and quantity.

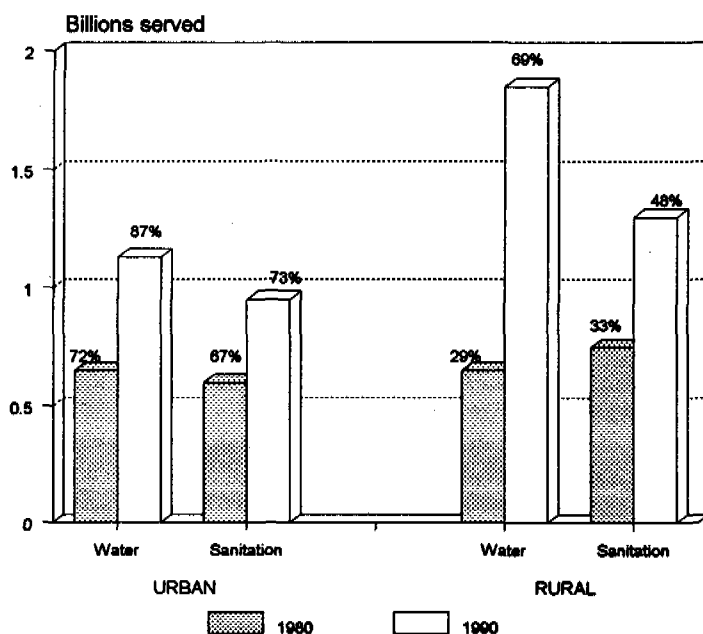
The 'old agenda' -- the household service agenda

The facts on water supply and sanitation coverage are presented in Figure 1. In interpreting these data it is instructive both to see the glass as half full and as half empty.

If we look at the glass as half full, we can take considerable satisfaction from the progress we have made in meeting this challenge -- over the course of the 1980s 1.6 billion additional people were provided with access to water of reasonable quality, the number of urban people with access to adequate water supply increased by about 80% in the 1980s, and the number of urban people with adequate sanitation facilities increased by about 50%.

If we look at the glass as half empty, we can see that the challenge is still enormous. There are still 1 billion people who do not have access to an adequate supply of water, and the 1.7 billion who do not have adequate sanitation facilities. And in urban areas the number of people without access to adequate sanitation actually increased by about 70 million over the course of the 1980s.

Figure 1: Access to safe water and adequate sanitation in developing countries in 1980 and 1990



The costs of these service shortfalls are most obvious and poignant in terms of human suffering. And what we see with our eyes is confirmed by the numbers we collect. We have abundant evidence of the huge costs of not providing access -- in city after city in the developing world those who are not served often pay high costs, especially the poor in urban areas who often rely on vendors who typically charge \$2 to \$3 for a cubic meter of water, which is 10 or more times the price which the served pay for water from a tap in their houses. And, as shown in Table 1, the health consequences are staggering -- an estimated 2 million deaths from diarrhoea alone could be avoided each year if all people had access to satisfactory water supply and sanitation services.

Table 1: Effects of improved water and sanitation on sickness

Disease	Millions affected by illness	Median reduction attributable improvement (%)
Diarrhoea	900*	22
Roundworm	900	28
Guinea worm	4	76
Schistosomiasis	200	73

*refers to number of episodes in a year

The emerging 'new agenda'

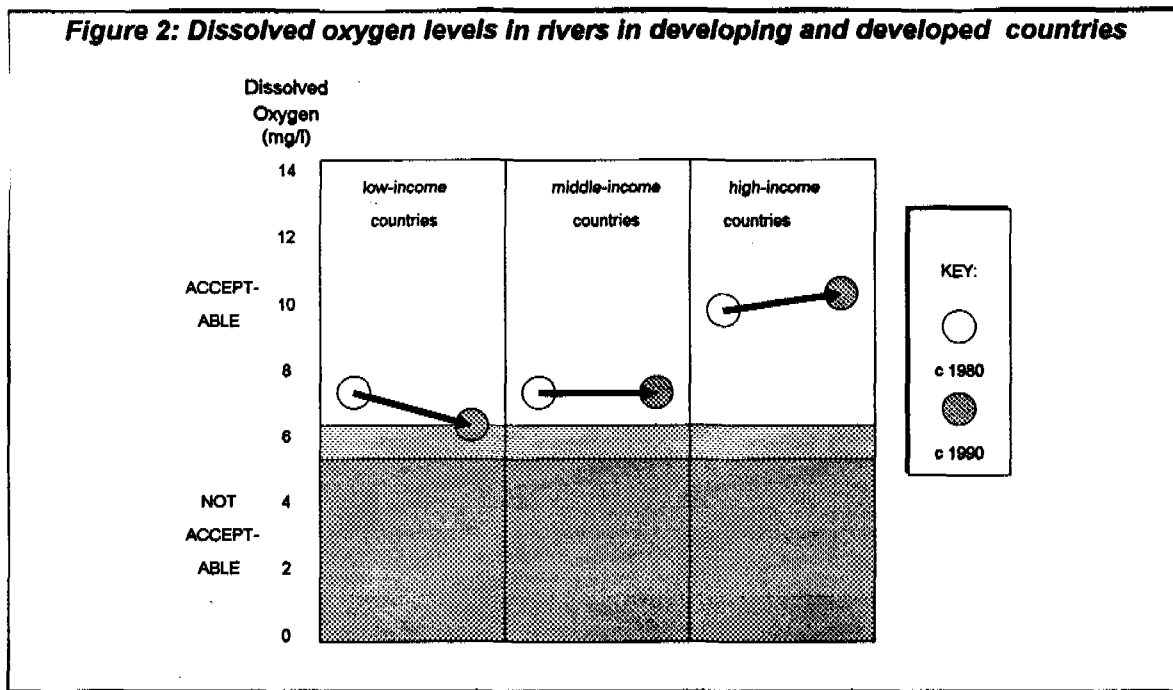
While the 'old' agenda, focused on house-hold services still poses large financial, technical and institutional challenges, the 'new' agenda -- of environmentally sustainable development -- has emerged forcefully and appropriately in recent years. In the context of this meeting this concern is manifest in terms of the quantity and quality of both surface and ground water.

The quality of the aquatic environment is a global concern. The situation in cities in developing countries is especially acute. Even in middle-income countries sewage is rarely treated. Buenos Aires, for instance, treats only 2% of its sewage, a figure which is typical for the middle-income countries of Latin America. As shown in Figure 2, water quality is far worse in developing countries than in industrialized countries. Furthermore, while environmental quality in industrialized countries improved over the 1980s, it did not improve in middle-income countries, and declined sharply in low-income countries.

The costs of this degradation can be seen in many ways. The vast majority of rivers in and around cities and towns in developing countries are little more than open, stinking sewers. Not only do these degrade the aesthetic life of the city, but they constitute a reservoir for cholera and other water-related diseases. And as the 'urban shadow' spreads, this requires expensive adaptations so that water supplies can remain safe. To take just one case, Shanghai had to move its water supply intake 40 kilometres upstream at a cost of \$300 million because of the degradation of river water quality around the city.

In this nexus of service and environmental issues, it is instructive to consider the sequence in which people demand water supply and sanitation services. Consider, for instance, a family which migrates into a shantytown. Their first environmental priority is to secure an adequate water supply at reasonable cost. This is followed shortly by the need to secure a private, convenient and sanitary place for defecation. Families show a high willingness to pay for these household or private services (in part because the alternatives, as described earlier, are so unsatisfactory and so costly). It is natural and appropriate, therefore, that they put substantial pressure on local and national governments to provide such services. And it is, accordingly, natural and appropriate that the bulk of external assistance in the early stages of development goes to meeting the strong demand for these services. The very success in meeting these primary needs, however, gives rise to a second generation of demands, namely for removal of wastewater from the household, then the neighbourhood and then the city. And, success in this important endeavour, too, gives rise to another problem, namely the protection of the environment from the degrading effects of large amounts of waste.

Figure 2: Dissolved oxygen levels in rivers in developing and developed countries



There are a number of implications emanating from this description. It means that the historic 'bias' in favour of water (at expense of sanitation and sewerage) is probably not only not wrong (as currently often implied) but actually right! The historic experience of industrialized countries, and the contemporary experience of developing countries demonstrate clearly that it is only when the first challenge (service provision) has been substantially met that households and the societies aggregating them pay attention to the 'higher-order' challenges of environmental protection. And it is thus neither surprising, nor incorrect⁴, that the portfolio of external assistance agencies has focused heavily on the provision of water supply. For example, of World Bank lending for water and sanitation over the past 30 years, only about 15% has been for sanitation and sewerage, with most of this spent on sewage collection and only a small fraction spent on treatment. Boxes 1 (on the Orangi Pilot Project in Karachi) and 2 (on the provision of sewerage services to the periphery of Sao Paolo, Brazil) demonstrate graphically how forcefully poor people demand environmental services, once the primary needs for water supply is met.

⁴For a more detailed discussion of this point, see pages 95 ff of the World Bank's World Development Report, 1993: Investing in Health

*Box 1: How and when poor people demand sanitation services, and how to meet these:
The case of the Orangi Pilot Project in Karachi*

In the early 1980s, Akhter Hameed Khan, a world-renowned community organizer, began working in the slums of Karachi. He asked what problem he could help resolve. People in this area had a relatively satisfactory supply of water but now faced 'streets that were filled with excreta and waste water, making movement difficult and creating enormous health hazards'. What did the people want, and how did they intend to get it, he asked. What they wanted was clear — 'people aspired to a traditional sewerage system... It would be difficult to get them to finance anything else.' And how they would get it, too, was clear — they would have Dr. Khan persuade the Karachi Development Authority (KDA) to provide it for free as it did (or so they perceived) to the richer areas of the city.

Dr. Khan then spent months going with representatives from the community petitioning the KDA to provide the service. Once it was clear that this would never happen, Dr. Khan was ready to work with the community in finding alternatives. (He would later describe this first step as the most important thing he did in Orangi — liberating, as he put it, the people from the demobilizing myths of government promises.)

With small amount of core external funding the Orangi project (OPP) was started. The services that people wanted were clear: the task was to reduce the costs so that these were affordable and to develop organizations that could provide and operate the systems. On the technical side, the achievements of the OPP architects and engineers were remarkable and innovative. Coupled with an elimination of corruption, and the provision of labour by community members, the costs (in-house sanitary latrine and house sewer on the plot, and underground sewers in the lanes and streets) are less than \$100 per household.

The (related) organizational achievements are equally impressive. The OPP staff has played a catalytic role — they explain the benefits of sanitation and the technical possibilities to residents and conduct research and provide technical assistance. The OPP staff never handled the community's money. (The total costs of OPP's operation amounted, even in the project's early years, to less than 15 percent of the amount invested by the community.) The households' responsibilities include financing their share of the costs, participating in construction, and election of a 'lane manager' (who typically represents about fifteen households). The lane committees, in turn, elect members of neighbourhood committees (typically around 600 houses) who manage the secondary sewers. The early successes achieved by the Project created a 'snowball' effect, in part because of increases in the value of property where lanes had installed a sewerage system. As the power of the OPP-related organizations increased, so they were able to bring pressure on the municipality to provide municipal funds for the construction of secondary and primary sewers.

The Orangi Pilot Project has led to the provision of sewerage to over 600,000 poor people in Karachi and to attempts by at least one progressive municipal development authority in Pakistan to follow the OPP method and, in the words of Arif Hassan "to have government behave like an NGO". Even in Karachi, the mayor has now formally accepted the principle of "internal" development by the residents and "external" development (including the trunk sewers and treatment) by the municipality.

The experience of Orangi demonstrates graphically how peoples' demands move naturally from the provision of water to removal of waste from their houses, then their blocks and finally their neighbourhood and town.

*Box 2: How and when poor people demand sanitation services, and how to meet these.
The case of the favelas of Sao Paulo*

In the 1980s the city of Sao Paulo, Brazil, made extraordinary progress in providing all of its residents with water supply and sanitation services. In 1980 just 32% of favelas (low-income, informal settlements) had a piped water supply, and less than 1% had a sewerage system. By 1990 the respective figures were 99% and 15%.

SABESP, the state water utility serving Sao Paulo, is a sophisticated technical water supply organization. Until the emergence of democracy in Brazil, SABESP had defined its role narrowly and technocratically. Specifically it did not consider provision of services to the favelas to be its responsibility, since it was not able to do this according to its prescribed technical standards, and because the favelas were not 'legal'. Before the legitimization of political activity in Brazil in the early 1980s, SABESP successfully resisted pressures to provide services to the favelas. While SABESP was resisting this pressure, a small municipal agency (COBES) experimented with new technical and institutional ways of providing water and sanitation services to the poor. On the technical side this did not involve provision of 'second-class' service, but of reducing the cost of providing in-house services by using plastic pipe and servicing of narrow roads where access was limited. On the institutional side it meant the community assuming significant responsibility for community relations, and for supervising the work of the contractors.

As the military regime withdrew and was replaced by democratic politics, the pressure on SABESP to serve the favelas increased. Pressure from the communities on SABESP were channelled through the municipal agencies, responsive officials and politicians (including the mayor and governor). Since COBES had shown how it was, in fact, possible to serve the favelas, SABESP had no option but to respond.

In the context of the present discussion, the lessons from Sao Paulo are:

- (a) that once the poor have water services, then strong demand for sanitation services emerges organically.
- (b) that where institutions are responsive and innovative, major gains can be made in the provision of these services at full cost to poor people.

The Financing Challenges

Developing countries thus face the formidable, double-barrelled challenge of completing the 'old agenda' and making progress on the 'new agenda'. In this section we examine these challenges from a financing perspective, by asking three questions:

- * what do services cost and how is this changing?
- * should public spending be increased? and
- * what are the central elements in a financially-sustainable approach to these challenges?

Question 1: What do services cost and how are the costs changing?

The old agenda:

Real costs of water supply and sanitation services are changing due to a number of factors. First are demographic and economic factors. As the population of developing countries becomes more urbanized, per capita costs rise. This is partly because a number of the low-cost, on-site urban sanitation technologies (see Table 2) become unfeasible in dense urban settlements, and partly because the aspirations of urban people -- as demonstrated in the Orangi and Sao Paulo cases -- are for a high level of service.

Table 2: Typical per capita costs for different levels of service

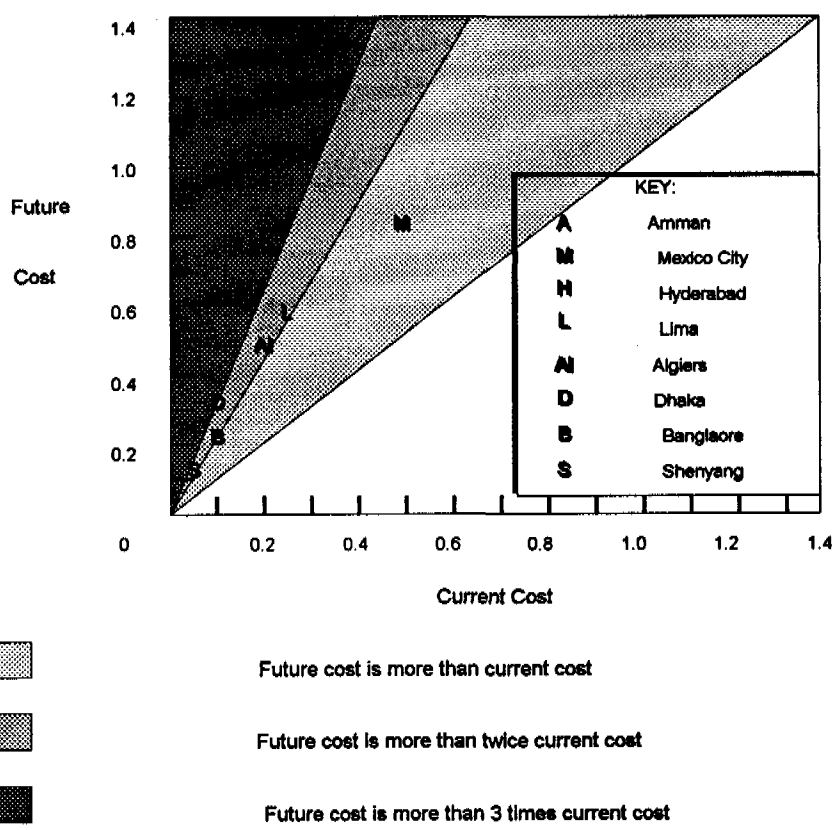
	RURAL		URBAN
	Low	Intermediate	High
Water supply	~\$10 ¹	~\$100 ²	~\$200 ³
Sanitation	~\$10 ⁴	~\$ 25 ⁵	~\$350 ⁶

- ¹Handpump or standpost
- ²Public standpost
- ³Piped water, house connection
- ⁴Pour-flush or ventilated improved pit latrines
- ⁵Pour-flush or ventilated improved pit latrines
- ⁶Piped sewerage with treatment

Second are resource factors. Twenty-two countries today have renewable water resources of less than 1,000 cubic meters per capita, a level commonly taken to indicate severe water scarcity, and an additional eighteen countries have less than 2,000 cubic meters per capita. Elsewhere water scarcity is less of a problem at the national level, but is nevertheless severe in certain regions, at certain times of the year and during periods of drought. The effects of these 'natural' factors are seriously exacerbated by the widespread mismanagement of water resources, with scarcity induced by the provision of large quantities of water at no or low cost for low-value agricultural uses. Costs are also affected by the fact that cities have logically first sought water where it is easiest and cheapest to obtain. Finally, as cities grow so the 'pollution shadows' around the cities often engulf existing water intakes, necessitating expensive relocation of intakes, as illustrated by the Shanghai case described earlier. The compound effect of these factors is, as illustrated in Figure 3, a large increase in the costs of capturing and transporting water of adequate quality to cities and towns throughout the world.

A major factor contributing to high costs is the inefficiency of most sector supply, as documented in a recent comprehensive review of World Bank experience in the water and sanitation sector. The review, which examined more than 120 sector projects over twenty-three years concludes that only four countries -- Singapore, Korea, Tunisia and Botswana -- have public water and sewerage utilities reached acceptable levels of performance.

Figure 3: How the cost of supplying water is increasing

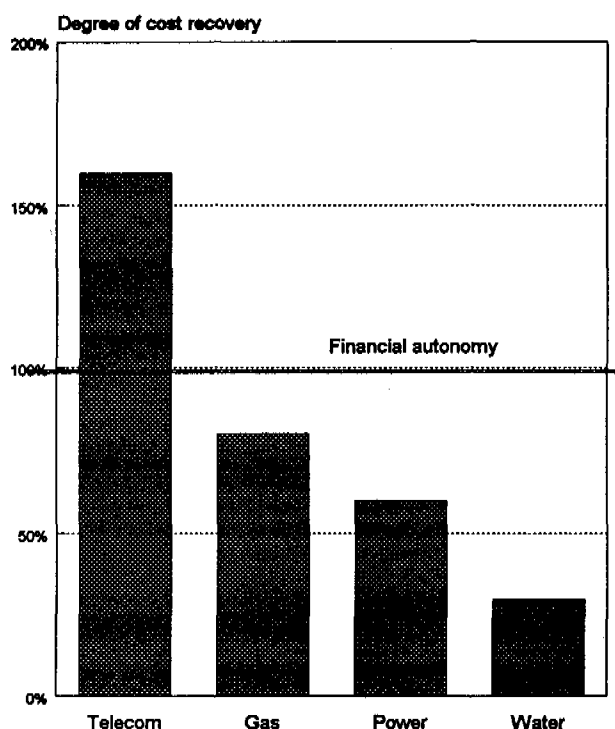


A few examples illustrate how serious the situation is:

- * In Caracas and Mexico City an estimated 30 per cent of connections are not registered.
- * Unaccounted-for-water, which is 8 per cent in Singapore, is 58 per cent in Manila and around 40 per cent in most Latin American cities. For Latin America as a whole, such water losses cost between \$1 and \$1.5 billion in revenue foregone every year.
- * The number of employees per 1,000 water connections is between 2 and 3 in Western Europe, around 4 in a well-run developing country utility (Santiago de Chile), but between 10 and 20 in most Latin American utilities.

Financial performance of water and sewerage agencies is equally poor and, as shown in Figure 4, much worse than for other infrastructure sectors. A recent review of Bank projects found that borrowers often broke their financial performance covenants. A corollary is that the shortfalls have to be met by large injections of public money. In Brazil from the mid-1970s to mid-1980s about \$1 billion a year of public cash was invested in the water sector. The annual federal subsidy for water and sewerage services to Mexico City amounts to over \$1 billion a year or 0.6 per cent of GDP.

Figure 4: Degree of cost recovery in infrastructure sectors



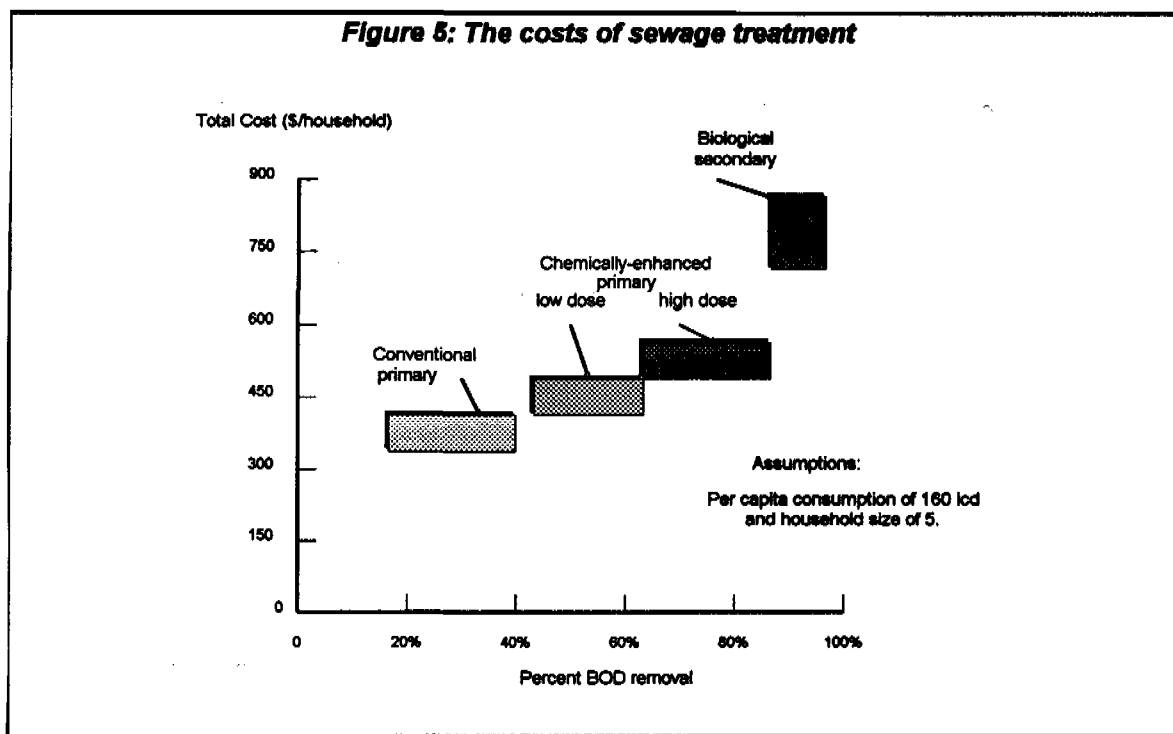
Source: WDR 94

Another World Bank study of projects launched between 1966 and 1981 showed that actual outcomes fell short of expectations for reducing unaccounted-for water in 89% of projects, in sales volume in 84% and containment of operation and maintenance costs in 74% of cases. In short, the vast majority of water supply agencies in developing countries are high-cost, low-quality producers of services.

The performance of most rural water supply agencies has generally been similarly poor. A common approach has been for governments to limit the services to low-cost technologies (such as improved pit latrines and handpumps). While the development of low-cost robust technologies of this sort is vital, a key mistake made in many programs has been to restrict the choices available to people. This paternalistic approach has proved to be highly counterproductive, fundamentally because the services offered have not corresponded to those which people -- including poor people -- want and are willing to pay for. In many instances this has led to a 'low-level equilibrium trap', in which people are not willing to pay for what they conceive of as an unsatisfactory service, which means that resources for the operation and maintenance of the service are not generated, and the quality of service declines still further. The lessons are clear. From a demand perspective this means that people must be trusted to choose, from a menu which includes a variety of service levels, those services which they want and are willing to pay for. From a supply perspective this means that rigorous attention must be paid to providing households with a particular level of service at the lowest possible cost.

The new agenda

Collecting and treating sewage is a very expensive business. Typical costs for collecting sewage from a household are of the order \$1,000. Treatment costs (see Figure 5) typically increase this to about \$1,500 just primary treatment. For higher levels of treatment (as is mandated now in industrialized countries, as shown on Figure 5, costs are much higher still).



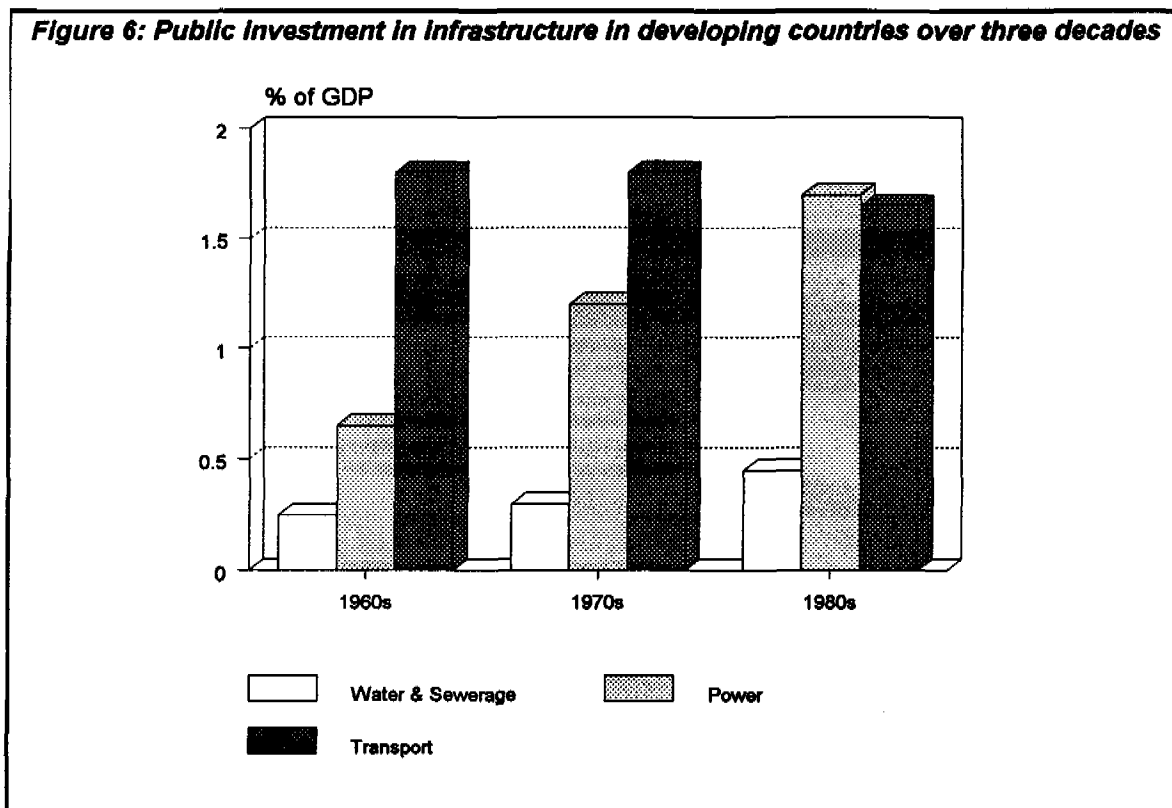
In the aggregate the costs of meeting the new agenda can become huge. To cite just one example, it is estimated that the United Kingdom will have to invest about \$60 billion in wastewater treatment over the next decade in order to meet the new European water quality standards. This amounts to about \$1,000 per capita, or about 0.6% of GDP over that period on wastewater treatment alone!

Compounding this already formidable picture is the fact that sewerage services in developing countries have been managed with even less efficiency than water services. In Accra, Ghana, for instance, only 130 connections were made to a sewerage system designed to serve 2,000 connections. And in Mexico it is estimated that less than 10% of sewage treatment plants are operated satisfactory.

Question 2: Should public spending be increased?

Public spending on the sector has increased substantially

Two recent assessments by the World Bank provide a clear overview of public financing for the water and sanitation sector in developing countries over the past three decades. As shown in Figure 6 below, the proportion of Gross Domestic Product (GDP) invested in water supply and sanitation rose from about 0.25% in the 1960s to about 0.45% in the 1980s. Furthermore, although it was widely believed that the allocation to the sector fell during the difficult years of the late 1980s, a World Bank analysis of information from Public Investment Review in 29 countries showed that while public investments had declined in this period (from 10.9% of GDP in 1985 to 8.7% of GDP in 1988) over this same period, investment in water and sanitation held virtually constant at about 0.4% of GDP.



The large 'hidden' water economy

In recent years it has become clear that there is, especially where formal institutions perform least adequately, a very large 'underground' industry for meeting those needs which the formal institutions do not meet.

Consider the following examples. In Jakarta, Indonesia, only 14% of the 8 million people living in the city receive piped water directly. About 32% purchase water from street vendors, and the remaining 54% rely on private wells. In Jakarta, furthermore, there are over 800,000 septic tanks, installed by local contractors, fully financed by households themselves, and maintained by a vibrant and competitive service industry. In cities throughout the developing world, the reliability of the formal water supply service is unsatisfactory, and so households build in-house storage tanks, install booster pumps (which can draw contaminated groundwater into the water distribution system) and sink wells. In Tegucigalpa, for example, the sum of such investments is so large that it would be enough to double the number of deep wells providing water to the city. The size of this 'hidden' water economy often dwarfs the size of the visible water economy. In Onitsha, Nigeria, for instance, revenues collected by water vendors are about ten times the revenues collected by the formal water utility!

And in rural areas, too, the 'hidden' water economy is often huge. In Pakistan, for instance, over 3 million families have wells fitted with pumps, many of which are motorized. These are paid for in full by the families, and all equipment provided and serviced by a vibrant local private sector industry.

The degree of distortion involved in ignoring the informal provision and financing of services varies greatly by level of development (as is obvious from the examples discussed). For prosperous urban areas, formal services are the norm; for low-income countries the formal services may be totally dwarfed by the informal, especially in rural areas but even in some cities. What is critical is the realization that this 'hidden' water and sanitation economy is extremely important in terms of both coverage and service. The nonformal sector offers many opportunities for providing services in an accountable, flexible way. When this is not possible because of economies of scale, then service by the informal sector offers a major source of supplementary financing which can be redirected if formal services can become more responsive to consumers' demands in an efficient and accountable way.

The existence of this 'hidden water and sanitation economy' has important implications for service provision. First, there is a high demand for services which has not been met successfully by the formal sector. Second, although some of these services are provided efficiently by the informal sector (such as tubewells in Pakistan), in other cases (such as water vending in the urban periphery) the costs of service are exorbitant, in large part because the informal providers cannot take advantage of the large economies of scale involved in transmitting water by pipe rather than by person or vehicle.

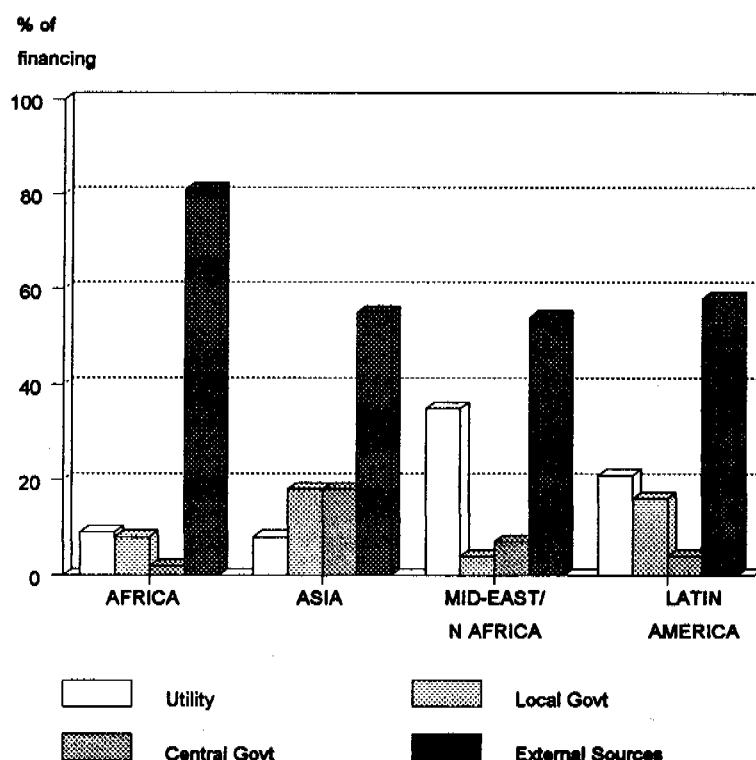
The specific implication for the formal sector is profound and clear -- there is an enormous reservoir of resources which can be drawn into the formal sector at reduced costs for all, as and when the formal sector is able to provide the services that consumers want in a responsive, accountable way.

Perhaps public expenditure on the 'old agenda' has been too high?

Performance and sustainability of water and sanitation services depends not only on the level of financing for these service, but the sources of such financing. Experience shows unequivocally that services are efficient and accountable to the degree that users are closely involved in providing financing for the services. Or, stated another way, deficiencies in financing arrangements are a major source of the poor sector performance described earlier.

A World Bank analysis has assessed in detail the sources of financing for water and sanitation projects assisted by the World Bank. Internal cash generation in efficient, financially-sustainable utilities is high -- 67% in a World Bank-assisted water and sewerage project in Valparaiso, for example. As shown in Figure 7, there are wide regional differences in the relationship between financing and users. Africa has the longest way to go, with utilities and local government providing only 17% of investment financing. In the other three regions the proportion of financing mobilized by utilities themselves and from local government is higher. In Asia the supply institutions themselves generate relatively little financing, with domestic financing from central and local government in about equal shares. In the Middle East and North Africa utilities themselves generate most of the domestic financing in World Bank-assisted projects, whereas in Latin America the contributions of the utility and local government are similar. Unsatisfactory as these figures are, it appears that things are getting worse: Internal cash generation financed 34% of costs in World Bank-financed projects in 1988, 22% in 1989, 18% in 1990 and just 10% in 1991.

Figure 7: Sources of financing in World Bank-assisted Water and Sanitation Projects



Question 3: What are the keys to developing a financially sustainable sector?

An important backdrop to this discussion is the radical rethinking which has taken, and is taking, place in all aspects of economic development policy and natural resource policy. In this context, it is instructive to characterize and contrast an 'old view' of sector policy (and the related financing challenges) which derives from the central planning model which dominated development thinking between the 1950s and the 1980s; and a 'new view' that is emerging as a result of the central place now occupied by efforts to introduce more 'market-friendly' policies, and by concerns of environmental sustainability.

Starting with this perspective, a remarkable, consensus has started to emerge in recent years on policies (including financial) for managing water resources and for delivering water supply and sanitation services on an efficient, equitable and sustainable basis. At the heart of this consensus are two closely related 'guiding principles' enunciated in the 1992, pre-UNCED, Dublin International Conference on Water and the Environment, namely that:

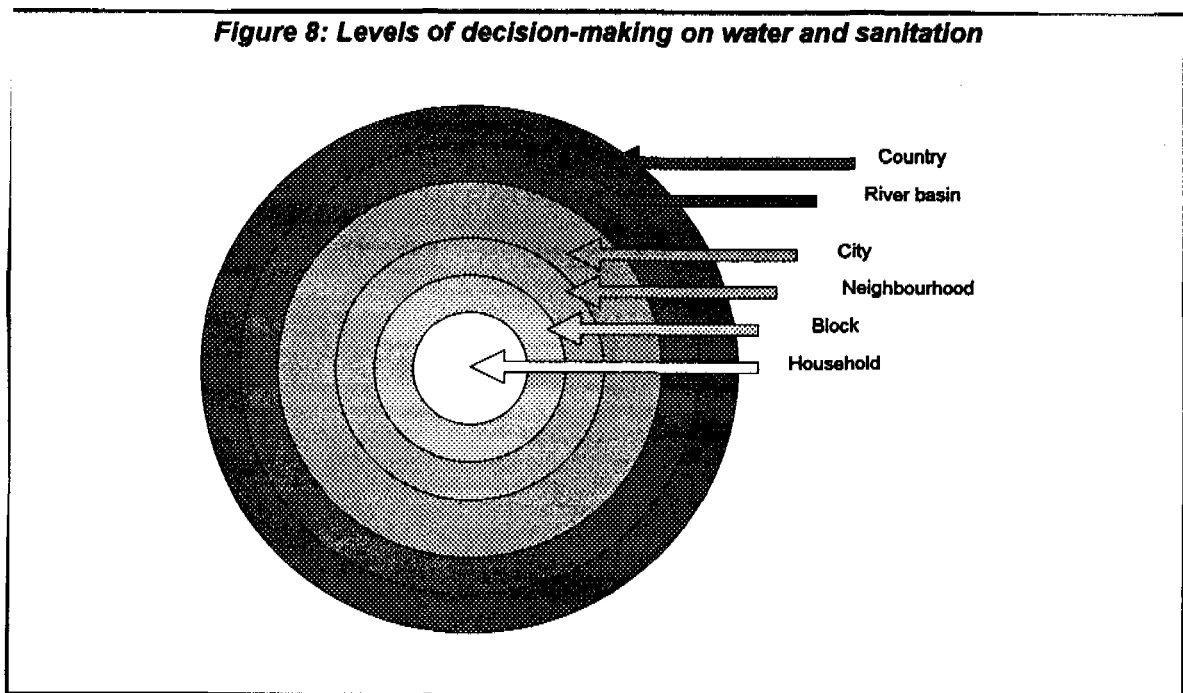
- * water has an economic value in all its competing uses and should be recognized as an economic good; and
- * water development and management should be based on a participatory approach, involving users, planners and policy makers at all levels, with decisions taken at the lowest appropriate level.

These principles are now being widely adopted (for instance in the World Bank's Water Resources Management Policy Paper and by the Development Assistance Committee of the OECD). The great challenges now facing the sector are articulation of the details implicit in these general principles and the translation of the Dublin principles into practice on the ground.

The new consensus gives prime importance to one central principle (long familiar to students of public finance) which should underlie the financing of water resources management and water supply and sanitation services.

This principle is that efficiency and equity both require that private financing should be used for financing goods, and public resources be used only for financing public goods. Implicit in the principle is a belief that social units themselves - ranging, in this case, from households to river basin agencies - are in the best position to weigh the costs and benefits of different levels of investment of resources for benefits that accrue to that level of social organization.

The vital issue in application of this principle to the water sector is the definition of the decision unit and the definition of what is internal (private) and external (public) to that unit. And here it is useful to think of the different levels at which such units may be defined, as illustrated in Figure 8 below.



To illustrate the implications of the 'decision-making rosette' (Figure 8), it is instructive to consider how water supply and sanitation services should be financed.

How water supply services should be financed

The economic costs of providing water include (a) the financial costs of abstracting, transporting, storing, treating and distributing the water and (b) the economic cost of water as an input. The latter cost arises because when water is taken, for example, from a stream for use in a city, then other potential users of that water are denied the possibility of using the water. The value of the most valuable opportunity foregone because of this water (known technically as the 'scarcity value' or 'opportunity cost') constitutes a legitimate element of the total production cost of water. In the most appropriate forms of water resources management (discussed later) charges are levied on users for this privilege. (As an empirical matter, the financial costs of water supplies to urban consumers and industries usually greatly exceed the opportunity costs. For low-value, high volume uses - specifically irrigated agriculture - this relationship is frequently just the opposite - opportunity costs comprise a considerable fraction of total costs, especially in situations of water scarcity.)

What of the benefit side? The provision of water supply to households has several different benefits. Households themselves value a convenient, reliable and abundant water supply because of time savings and amenity benefits and, to a varying degree, because of the health benefits it confers on them. Because these 'private' benefits constitute the bulk of the overall benefits of a household water supply, the public finance allocation principles dictate that most of the costs of such supplies should be borne by householders themselves. When this is the case households make appropriate decisions on the type of service they want (for example, a communal tap, a yard tap or multiple taps in the household). The corollary is that, because this is principally a 'private good', most of the financing for the provision of water supply services should be provided through user charges sufficient to cover both the economic costs of inputs (including both the direct financial cost of inputs such as capital and labour and the opportunity cost of water as an input.)

How sanitation, sewerage and wastewater management should be financed

The benefits from improved sanitation, and therefore the appropriate financing arrangements, are more complex. At the lowest level, households place high value on sanitation services which provide them with a private, convenient and odour-free facility which removes excreta and wastewater from the property or confines it appropriately within the property. However there are clearly benefits which accrue at a more aggregate level and are therefore 'externalities' from the point of view of the household. At the next level, the block, this means that households in a particular block collectively value services which remove excreta from the block as a whole. At the next level, that of the neighbourhood, services which remove excreta and wastewater from the neighbourhood, or which render these wastes innocuous through treatment, are valued. Similarly at the level of the city, the removal and/or treatment of wastes from the environs of the city are valued. Cities, however, do not exist in a vacuum - the wastes discharged from one city may pollute the water supply of a neighbouring city. Accordingly, groups of cities (and farms and industries and others) in river basin perceive a collective benefit from environmental improvement. And finally, because the health and well-being of a nation as a whole may be affected by environmental degradation in one particular river basin, there are sometimes additional national benefits from wastewater management in a particular basin.

The fundamental axiom of public financing prescribes that costs should be assigned to different levels in this hierarchy according to the benefits accruing at different levels. This would suggest that the financing of sanitation, sewerage, and wastewater treatment be approximately as follows:

- * households pay the bulk of the costs incurred in providing on-plot facilities (bathrooms, toilets, on-plot sewerage connections);
- * the residents of a block collectively pay the additional costs incurred in collecting the wastes from individual houses and transporting these to the boundary of the block;
- * the residents of a neighbourhood collectively pay the additional cost incurred in collecting the wastes from blocks and transporting these to the boundary of the neighbourhood (or treating the neighbourhood wastes);
- * the residents of a city collectively pay the additional cost incurred in collecting the wastes from blocks and transporting these to the boundary of the city (or treating the city wastes);
- * the stakeholders in a river basin - cities, farmers, industries and environmentalists - collectively assess the value of different levels of water quality within a basin, decide on what level of quality they wish to pay for, and on the distribution of responsibility for paying for the necessary treatment and water quality management activities.

In practice, of course, there are complicating factors to be taken into account (including transactions costs of collection of revenues at different levels, and the interconnectedness of several benefits). What is striking, nevertheless, is that the most innovative and appropriate forms of sector financing (and service provision) follow the above logic to a remarkable degree.

Box 1 (earlier this paper) presents the case of the financing of sewerage in an informal urban settlement in Karachi, Pakistan. In this case households pay the costs of their on-lot services, blocks pay the cost of the tertiary sewers, blocks pool their resources to pay for the neighbourhood (secondary) sewers, and the city (via the Municipal Development Authority) pays for the trunk sewers. This evocation 'feeder/trunk' distinction is now being applied on a much larger scale to the provision of urban services in Pakistan.

The arrangements for the financing of condominium sewers by the urban poor in Brazil(box 3) follows remarkably similar lines – households pay for the on-lot costs, blocks pay for the block sewers (and decide what level of service they want from these), with the water company of municipality paying for the trunk sewers.

Even when the appropriate financing and institutional principles are followed, however, very difficult issues arise with respect to financing of wastewater treatment facilities. In industrialized countries it is possible to discern two models which have been used.

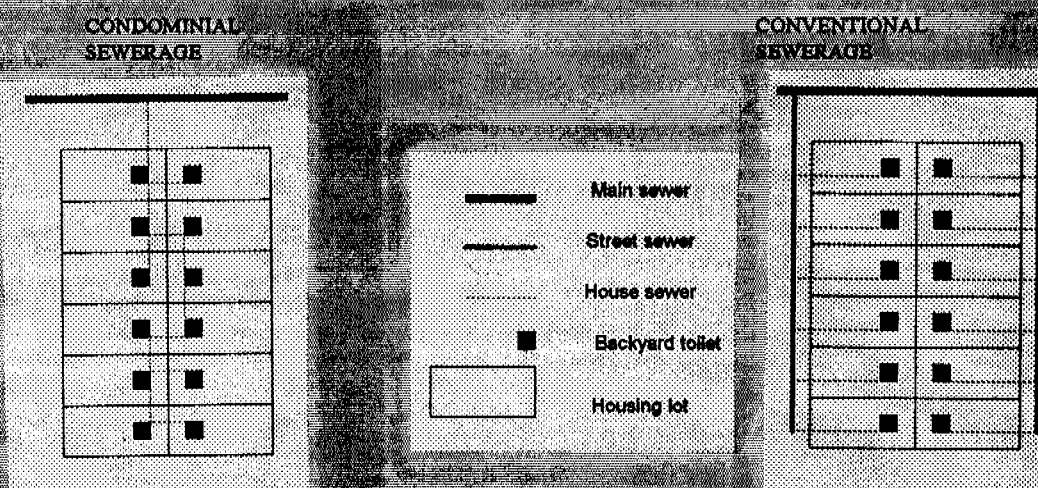
In many industrialized countries the approach followed has been to set universal standards and then to raise the funds necessary for financing the required investments. As is becoming increasingly evident, such an approach is turning out to be financially infeasible, even in the richest countries of the world. In the United Kingdom, the target date for compliance with the water quality standards of the European Community is being reviewed as customers' bills rise astronomically to pay the huge costs (over \$60 billion this decade) involved. And in the United States local governments are revolting against the unfunded mandates of the Federal Government. A particularly pertinent case is the refusal of cities on the Pacific coast to spend the resources (\$3 billion in the case of San Diego alone) required for secondary treatment of sewage. The National Academy of Sciences of the United States has advocated rescinding the "secondary treatment everywhere" mandate and developing an approach in which the costs and benefits are both taken into account in the management of sewage in coastal areas.

In a few countries a different model has been developed. In these countries, institutional arrangements have been put into place which (a) ensure broad participation in the setting of standards, and in making the tradeoffs between cost and water quality; (b) ensure that available resources are spent on those investments which yield the highest environmental return and (c) use economic instruments to encourage users and polluters to reduce the adverse environmental impact of their activities.

Box 3: The condominial sewerage system in Brazil

The "condominial" system is the brain-child of Jose Carlos de Meio, a socially committed engineer from Recife. The name "condominial" was given for two reasons. First, a block of houses was treated like a horizontal apartment building -- or "condominial" in Portuguese (see figure 9 below). Second, "Condominial" was a popular Brazilian soap opera and associated with the best in urban life! As is evident in Figure 9 below, the result is a radically different layout (with a shorter grid of smaller and shallower "feeder" sewers running through the backyards and with the effect of shallower connections to the mains rippling through the system). These innovations cut construction costs to between 20 percent and 30 percent of those of a conventional system.

Figure 9: Schematic layouts of condominial and conventional sewerage systems



The more fundamental and radical innovation, however, is the active involvement of the population in choosing their level of service, and in operating and maintaining the "feeder" infrastructure. The key elements are that families can choose: (i) to continue with their current sanitation system; (ii) to connect to a conventional water-borne system; or (iii) to connect to a "condominial" system. If a family chooses to connect to a condominial system, it has to pay a connection charge (financed by the water company) of, say X cruzados, and a monthly tariff of Y cruzados. If on the other hand, it wants a conventional connection, it has to pay an initial cost of about 3X and a monthly tariff of 3Y (reflecting the different capital and operating costs). Families are free to continue with their current system (which usually means a holding tank discharging into an open street drain). In most cases, however, those families who initially choose not to connect eventually end up connecting. Either they succumb to heavy pressure from their neighbours. Or they find the build-up of wastewater in and around their houses intolerable once the (connected) neighbours fill in the rest of the open drain.

Individual household are responsible for maintaining the feeder sewers, with the formal agency tending to the trunk mains only. This increases the communities' sense of responsibility for the system. Also, the misuse of any portion of the feeder system (by, say, putting solid waste down the toilet) soon shows up in a blockage in the neighbour's portion of the sewer. This means rapid, direct and informed feedback to the misuser!. This virtually eliminates the need to "educate" the users of the system in the do' and dont's, and results in fewer blockages than in conventional systems. Finally, because of the greatly reduced responsibility of the utility, its operating costs are sharply reduced.

The condominial system is now providing service to hundreds of thousands of urban people in Northeast Brazil and is being replicated on a large scale throughout the country. The danger, however, is that the clever engineering is seen as "the system". Where the community and organizational aspects have been missing, the technology has worked poorly (as in Joinville, Santa Catarina) or not at all (as in the Baixada Fluminense in Rio de Janeiro).

These principles were first applied immediately before the First World War to the management of the Ruhr River Basin in Germany's industrial heartland and have provided the underpinnings for the management of the Ruhrverband ever since. Learning from the experience of their German neighbours, France developed a national river basin management system based on the Ruhrverband principles and have been applying it since the early 1960s. Box 4 below describes the principles of these river basin financing and management models and shows how resources for wastewater treatment and water quality management are raised from users and polluters in a basin, and how stakeholders -- including the users and polluters, as well as citizens' groups -- are involved in deciding the level of resources which will be raised and the consequent level of environmental quality they wish to "purchase"⁵. This system, which obviously embodies the central principles codified in the Dublin Statement, has proved too be extraordinarily efficient, robust and flexible in meeting the financing needs of the densely industrialized Ruhr Valley for 80 years, and the whole of France since the early 1960s.

There is growing evidence that if such participatory agencies were developed, people in developing countries would be willing to pay substantial amounts for environmental improvement. In the state of Espirito Santo in Brazil, a household survey showed that families were willing to pay 1.4 times the cost of sewerage collection systems, but 2.3 times the (higher) cost of a sewerage collection and treatment system. In the Rio Dolce Valley, an industrialized basin of nearly 3 million people in Southeast Brazil, a French-type river basin authority is in the process of being developed. Stakeholders have indicated that they are willing to pay about \$1 billion over a five-year period for environmental improvement. And in the Philippines recent surveys show that households are often prepared to make substantial payments for investments which will improve the quality of lakes and rivers.

For developing countries the implications of the experience of industrialized countries are crystal clear. Even rich countries manage to treat only a part of their sewerage -- only 52% of sewage is treated in France and only 66% in Canada. Given the very low starting point in developing countries -- only 2% of wastewater is treated in Latin America, for example -- and the vital importance of improving the quality of the aquatic environment, what is needed is a process which will simultaneously make the best use of available resources, and provide incentives to polluters to reduce the loads they impose on surface and ground waters.

Against this backdrop, developing countries face an awesome challenge. The "old agenda", namely the provision of water supply and household sanitation services, is clearly a relatively "easy" task if sensible financial policies are adopted, since consumers want and are willing to pay for these services. And yet only a handful of developing countries have been successful in meeting this "easy" task in an efficient, responsive and financially sustainable way. The "new agenda", which centres on management of wastewater and the environment, is a much more difficult and expensive one, and one in which successes (in terms of efficiency and financial sustainability) are few and far between even in industrialized countries.

What is heartening is that there is evidence that the right lessons are being drawn from the experience of many developed countries. Just five years ago the Baltic Sea Clean-up was conceived of in classic terms -- setting quality standards and then determining what was needed to finance the needed investments. In this case (as in all others) once the calculations were done, it became clear that the necessary money (over \$20 billion) could not possibly be raised. In the interministerial Conference on Financing of the Baltic Sea Clean-Up in Gdansk in 1993 this approach was abandoned for a far more productive one, namely ensuring that limited available resources were invested in such a way as to develop financially sustainable, efficient water and sanitation utilities, and to ensure that the limited resources for wastewater treatment were allocated to the highest priority investments.

Daunting as the "new agenda" is, there is cause for hope. It is encouraging that delegates from over 100 countries could agree at the International Conference on Water and Environment in Dublin on the global relevance of the principles underlying the Ruhr and French water resource management systems. Even more important are the signs that the Ruhr/French system is now being adopted, with appropriate modifications, in Spain, Poland, Brazil, Venezuela and Indonesia, and is likely to be applied in many developing countries in the near future.

⁵ With respect to the discussion in Sections A and B of the Chapter on Freshwater in Agenda 21 - on respectively, Integrated Water Resource Management and Development, and on Protection of Water Resources, Water Quality and Aquatic Ecosystems -- it is relevant to note that the administrative and technical budgets of the River Basin Agencies are also decided upon by the governing "Water Parliaments".

Box 4: Water resource financing through river basin agencies in Germany and France

The Ruhrverband

The Ruhr Area, which has a population of about 5 million, contains the densest agglomeration of industrial and housing estates in Germany. The Ruhrverband is a self-governing public body which has managed water in the Ruhr Basin for eight years. There are 985 users and polluters of water (including communities, districts, and trade and industrial enterprises) which are "Associates" of the Ruhrverband. The highest decision-making body of the Ruhrverband is the assembly of associates, which has the fundamental task of setting the budget (of about \$400 million annually), fixing standards and deciding on the charges to be levied on users and polluters. The Ruhrverband itself is responsible for the "trunk infrastructure" (the design, construction and operation of reservoirs and waste treatment facilities), while the communities are responsible for the "feeder infrastructure" (the collection of wastewater).

The French River Basin Financing Agencies

In the 1950s it became evident that France needed a new water resources management structure capable of successfully managing the emerging problems of water quality and quantity. The French modeled their system closely on the principles of the Ruhrverband, but applied these principles on a national basis. Each of the six river basins in France is governed by a Basin Committee (also known as a 'Water Parliament') which comprises between 60 and 110 persons who represent all stakeholders -- national, regional and local government, industrial and agricultural interests and citizens. The Basin Committee is supported by a technical and financial 'Basin Agency'. The fundamental technical tasks of the Basin Agency are to determine (a) how any particular level of financial resources should be spent (where should treatment plants be located; what level of treatment should be undertaken etc.) so that environmental benefits are maximized and (b) what level of environmental quality any particular level of financial resources can 'buy'. On the basis of this information, the Water Parliament decides on (a) the desirable vector of costs and environmental quality for their (basin) society, and (b) how this will be financed (relying heavily on charges levied on users and polluters). The fundamental financial task of the Basin Agency is to administer the collection and distribution of these revenues.

In the French system (in contrast to the Ruhrverband) most of the resources which are collected are passed back to municipalities and industries for investments in the agreed-upon water and wastewater management facilities.

Some common (erroneous) beliefs about the new approach to financing:

Finally, it is important to explore three commonly-held beliefs which may impede the adoption of the "new" financing perspective.

Belief #1: The existence of externalities means that a demand-based, participatory approach to sector development cannot work

It is frequently asserted that a demand-based approach is fine for "private goods" but not for 'public goods' (such as environmental quality).

In this context, it is important to note that a central feature of the approach advocated in this paper is respect for the capacity of stakeholders to make the right decisions. First it should be noted that the principle which applies at the household level -- namely that the household is in the best position to decide how to spend the resources available to it -- can successively be applied at greater and greater levels of social aggregation (remember that 'the household', too,

is a social aggregation!) to solve the resource allocation issues appropriate to that level⁶. Second, it should be noted that there is no appeal to override the basic behavioral-based decision process by appealing to 'externalities', but simply a need to deal with externalities at any particular level by 'kicking them up' one level, where they are internalized⁷. And third, that a successively smaller and smaller number of decisions needs to be made at higher levels.

There is clear evidence from the experience of the World Bank that the (appropriate) concern with environmental quality can easily lead to a supply-driven approach which mandates investments on the basis of 'technocratic criteria' and which ends up serving the interests of consultants and contractors, but not the people to be served or the environment in which they live. In such a context it has correctly been asserted that 'externalities are the first refuge of scoundrels'!

Belief #2: The new approach to financing does not address the needs of the poor

A second myth about the 'new' approach to financing is that it does not take adequate account of the situation of the poor and their need for subsidies.

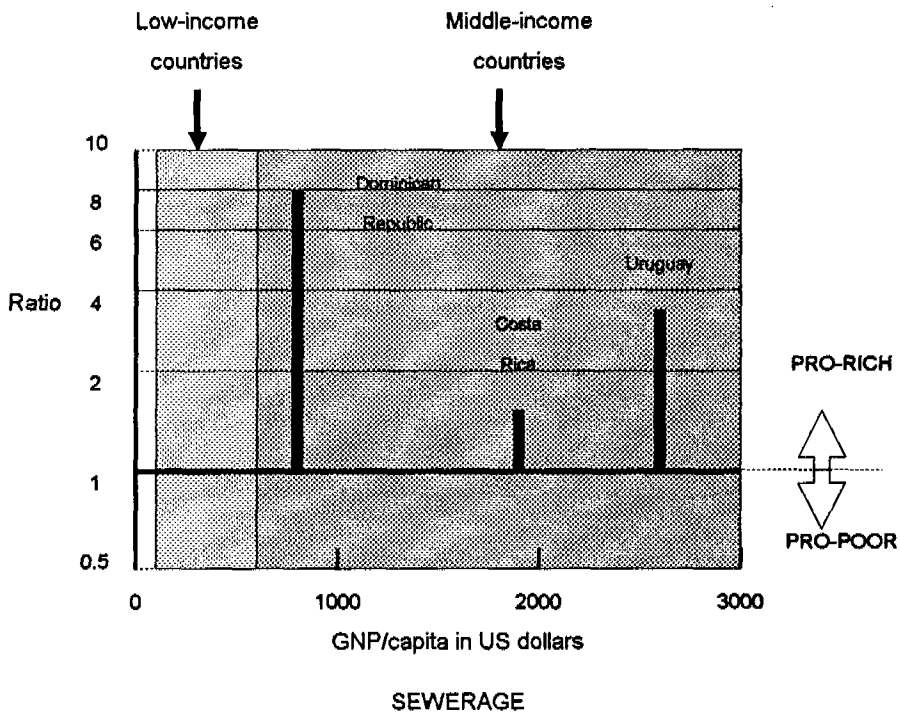
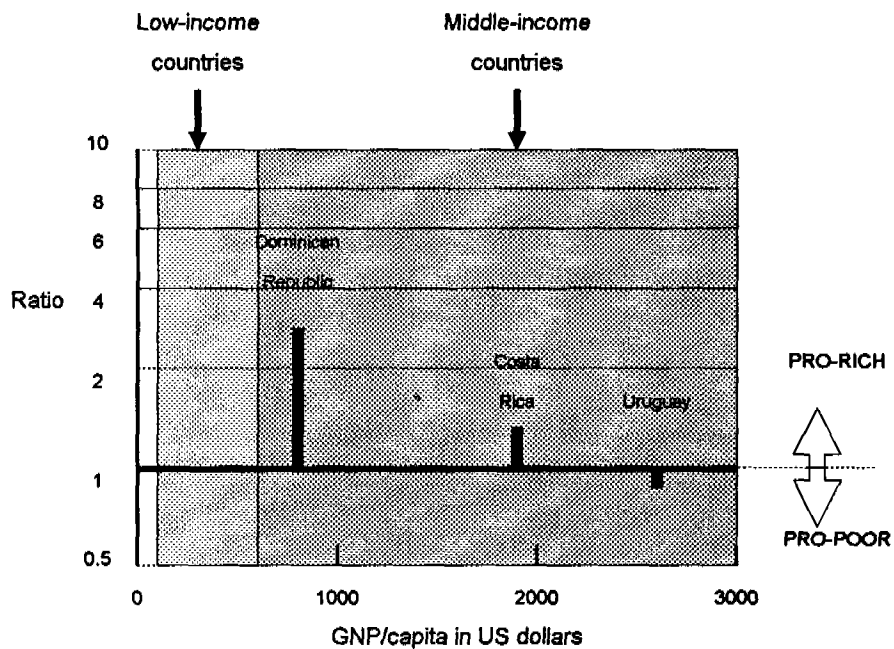
The justification for high levels of public financing for water and sanitation services in developing countries usually offered is the low ability of poor people to pay for services. In practice, however, it is the rich, not the poor, who virtually always benefit disproportionately from subsidized water and sanitation services.

⁶The critical concept here is that one party's externalities are another party's costs (or benefits).

⁷The situation is similar for health benefits, as discussed in pages 92 through 95 of the World Bank's World Development Report, 1993: Investing in Health.

Figure 10: Who benefits from subsidized water and sanitation services in Latin America:

"Ratio" = subsidies to the richest 20%/subsidies to the poorest 20%

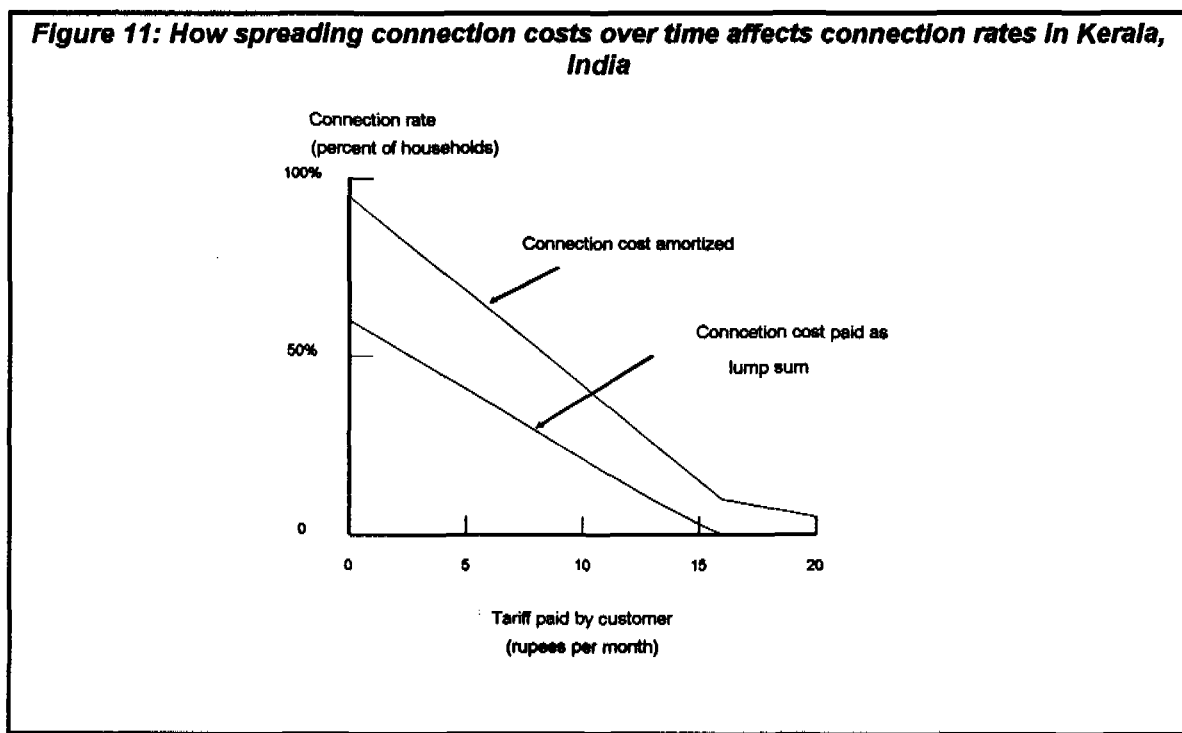


As described earlier, the unserved people, particularly those in urban areas, pay much higher prices for water. And it is the poor who are the unserved. Figure 10 reports the results of a detailed assessment of who benefits from public subsidies of water supply and sanitation services in several Latin American countries. The results are striking and the conclusions clear - although subsidies are justified as 'being necessary because poor people cannot afford to pay', they end up heavily favouring the rich, with the inequity directly related to the degree of rationing of the service. Inequity is, accordingly, greater in low- than in middle- income countries, and greater for sewerage than for water supply.

The cycle is clear. Where services are heavily subsidized, service expansion is relatively slow, both because available resources are used inefficiently (because the supply organizations are not directly accountable to their customers) and because of constraints on public financing. The consequence is that 'the lucky ones' get subsidized services while 'the unlucky ones' who are not served pay an exorbitant human, social and financial price to get services. Data from Latin America (Figure 10) provide clear confirmation of the universal rule, namely that 'luck' is not a random outcome, but is the prerogative of the privileged. These data also show that inequities are greatest where services are most heavily rationed, namely in the poorest countries and for sewerage. (This has appropriately been termed 'the hydraulic law of subsidies' - the pronouncements notwithstanding, benefit first. And it will always be the less influential - the poor - who are at the end of the line both literally and figuratively and who either do not get services or who suffer most from poor quality services.)

If subsidized services don't make sense, then does this mean 'abandoning the poor? The answer is a clear no. Although subsidies often (as in the above case) work perversely in practice, the transfer of resources to poor people is obviously a legitimate (and desirable) instrument of public policy. In the present context the key is to resist the temptation to wrap those transfers up into the transfer of particular types of services (which the poor may or may not value). Once again this comes down to the question of trusting people -- even poor people -- to know how best to spend the resources which are available to them. In practice then, where block grants are made to poor communities, these can, appropriately, be used by the community to pay for water and sewerage services, if these are the services which the communities value most. (this is a practice which is becoming fairly widespread in the social development funds which have become common in developing countries in recent years.)

An issue of considerable importance for the poor is that of the difficulties they face in raising the capital required for the initial costs of connecting to a piped water supply system. Studies in India and Pakistan (figure 11) have shown that connection rates can be increased very substantially if water companies provide financing (not subsidies) to poor customers for the costs of connecting to piped systems. The experience of Grameen Bank in Bangladesh (Box 5) shows that more people -- and especially poor people -- will make use of improved supplies if supply agencies can help consumers in spreading initial costs over time. This practice - of amortizing the costs of connections over, typically, five years -- has been practised to considerable success in Latin America for many years.



Box 5: How the Grameen Bank finances rural water supply in Bangladesh

The Grameen Bank in Bangladesh is well known as a provider of credit to over two million poor and landless people in Bangladesh. A larger proportion of the clients of the Bank are women. The great innovation of the Grameen Bank is to find an alternative to traditional forms of collateral. The key principle is that if any borrower defaults, then the group to which that borrower belongs no longer is considered creditworthy and is no longer eligible for loans.

In recent years the lending of the Grameen Bank for rural water supplies has risen dramatically. Since early 1992 the Bank has provided loans for about 70,000 tubewells. In 1993 the Bank lent about \$16 million. The interest rate charged on loans for tubewells is 20 percent, repayable over two years in weekly instalments. The handpumps are procured locally by the borrowers, either from the Public Health Engineering Department or from local private manufacturers.

Belief #3: The financing problem can be overcome by mobilizing financing from the private sector

Faced with constraints on public financing, some countries have looked to the private sector for financing of the massive investments required. There are many reasons - efficiency, innovation, and separation of provider and regulator -- suggesting that it is often appropriate to involve the private sector in the provision of these services. And there are an increasing number of examples of private sector financing being mobilized for wastewater investments (especially for Build-Operate-Transfer schemes) in Mexico, Malaysia, Indonesia and other developing countries.

In this context of the present discussion, there are two major factors to be taken into account in assessing the role of the private sector in financing of wastewater investments in developing countries. First, as shown in Figure 12, public facility projects are often 'characterized by a long construction period, followed by a gradual increase in the revenue extracted from the operation, with the result that the investors may have to wait 8 to 10 years before receiving their first dividend and will almost have to wait 15 to 20 years before obtaining a rate of return comparable to that offered by an industrial investment. In addition, the entire construction period may be characterized by considerable uncertainty about the ultimate profitability of the investment (because of potential cost overruns and because about the uncertainty about operating revenues). During this period of great uncertainty, remuneration of the investor's risk should compare to that of venture capital and run at the level of 25 to 30%. In contrast, when tariff levels are known following commencement of operation, revenues are not likely to vary as much as in an industrial project. The risk (and appropriate return) is thus less.⁸

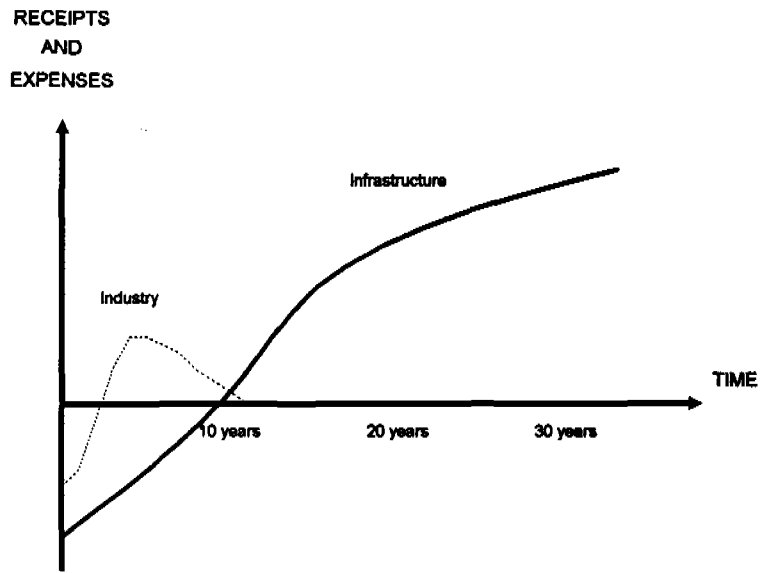
Three observations are relevant in this context. First (see Table 3), in the country with the longest history of private sector participation in the water sector -- France -- the bulk of privately-operated water supplies are privately financed (concession contracts), but the majority of privately operated sewerage is publicly financed (affermage contracts). Second, where capital markets are relatively shallow -- as is the case in most developing countries -- the transition from public financing to long-term private financing is going to take time and ingenuity. And third, because the investment costs are so large, cost recovery frequently has to be scheduled over a number of years.

Table 3: Private and public financing of privately-operated water and sewerage services in France (approximately)

	Water supply	Sewerage
Affermage (public financing)	30%	70%
Concession (private financing)	70%	30%
All delegates management	100%	100%

⁸ Laurent Davezies and Remy Prud'homme, 1993

Figure 12: The time profile of expenses and receipts for typical Infrastructure Investments



After Davezies and Prud'homme, 1993

CONCLUSIONS

We can now look back at the financing challenges which face us in this sector.

First, we need to complete the "old agenda". From a financing point of view it is clear that the bulk of financing can and should come from users. For this to happen attention has to be given to both demand-side and supply-side factors. On the demand side there must be a rigorous focus on providing the services that people want and are willing to pay for. Above all this means changing from the "we know best" attitude which has characterized the sector for too long, to a focus on meeting households' needs as the households themselves see them. On the supply side the focus must be on developing institutional arrangements which provide services at least cost and in a way that is responsive and accountable to consumers. The examples we have discussed provide some indications of the directions which are most promising. In many cases this will involve partnerships in which "non-formal institutions" (such as neighbourhood associations) manage the feeder infrastructure, and "formal institutions" (such as utilities) manage the trunk infrastructure. And in many cases this will involve a much greater role for the private sector in the provision of services, both via non-formal and formal institutions.

Second, we need to embark on the "new agenda". Here the challenge for developing countries is enormous. As this paper has made clear, financial realities are forcing industrialized countries to make difficult choices about the level of investments to make in preserving the aquatic environment and about how to spend the available resources. In developing countries, the situation is much more difficult in three ways. First because this challenge has to be met while the "old agenda" is still on the table. Second because the level of aquatic environmental quality is much worse in developing countries. And third because developing countries have far fewer resources to devote to environmental protection. What this means is that developing countries and those who support them have to confront very difficult tradeoffs and make many tough decisions. The evidence presented in this paper provides strong support for the central principles advocated by the International Conference on Water and Environment ('participatory management, with responsibility at the lowest appropriate level' and 'treating water as an economic good'). More specifically, addressing the new agenda in developing countries requires:

- * developing institutional mechanisms, such as river basin financing agencies, which are governed by stakeholders, which are designed to make stakeholders reach the difficult decisions on environmental quality and the associated level of financing; and which ensure that the maximum environmental benefit is gained from limited resources; and
- * much greater use of market-like instruments (including prices and financially self-sufficient supply organizations).

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**Intervention by Mr. T. Wirth, USA.
Counsellor, U.S. Department of State**

Good Morning, thank you for providing me with the opportunity for this intervention -- and our thanks to the Netherlands for hosting this extremely important session.

I am here to underscore the high priority which the United States places on safe drinking water and environmental sanitation. Along with such issues as population, biodiversity, and climate change, this deserves our highest attention.

First, let me start with some personal observations. As a boy growing up in the Rocky Mountains of the American West, I could drink from almost any mountain stream; just 30 years later, I had to teach my children to purify their water -- scarcely a stream is unpolluted today.

This winter in Washington D.C., our nation's capital, we had periodic crises: water pipes burst, sewage surged into the Potomac river, and public health authorities advised us to drink only bottled water.

This is a problem which all nations face; no one can be self-satisfied. Even after 20 years of concerted effort, and the expenditure of billions of dollars, we in the United States still have a long way to go.

Second, as outlined by President Clinton in his United Nations Speech last fall, sustainable development is at the core of new U.S. policy towards assistance, economics and international cooperation. This commitment to basic human needs includes an emphasis on least-cost planning, appropriate technologies, conservation, getting the prices right and transparency-approaches necessary for the modern management of any scarce natural resource, and particularly important in providing safe drinking water and sanitation.

Beyond financial assistance, we have found that the process of partnership is a third important endeavor and, as we have found at home, crucial to effective and efficient management. As Vice-President Gore outlined in his important speech before the first session of the commission on sustainable development last summer, we believe that new partnerships must be formed:

- Partnerships with countries at all levels of development, where we can offer our experience in such areas as wetlands protection, river system management, transboundary water issues, and new cooperative institutions such as those being established under the North American Free Trade Agreement;
- Partnerships with the private sector, whose discipline, understanding of markets and sense of purpose brings valuable experience and much needed capital to our work;
- Partnerships with non-governmental organizations, who have become increasingly important, effective and relevant forces for advocacy, change and decentralized management in a broad array of global challenges, from environment to population to human rights and refugees;
- Partnerships with local government, where the business of drinking water and sanitation is most often best understood and managed;
- And partnerships with women, who see most closely and intensely the ravages of child sickness, the burdens of the daily search for water, and personal and family indignities of untreated sewage. In every aspect of our policy we are working to raise the status, involvement and role of women, and nowhere is this more important than in relation to water.

Finally, Mr. Chairman, as we redefine our national security in the post-cold war world, we are cognizant of the need to better understand and anticipate the potential of national conflicts over water; to work together to reinvigorate or save such historic homes to our cultures as the Mediterranean, the Nile, the Gulf of Siam, Lake Baikal and the Chesapeake Bay; to reorganize the projects which international financial institutions support and the way they operate; and to reaffirm the responsibilities of rich and poor alike to put behind us the rhetoric of confrontation, and to instead focus on the opportunities of partnership, the promise of sustainability, and the legacy we can together transmit to posterity, starting with our children and grandchildren.

We are indebted to the Dutch government and others who have worked so hard and so well to organize and make successful this most important conference. The preparatory work, Political Statement and Action Plan are impressive and inspiring. We thank all participants for their commitment, engagement and cooperative spirit and look forward to working with you in the months and years ahead.

Statement by Mr. Kamal Nath, Minister for Environment and Forests of India

DISTINGUISHED DELEGATES AND COLLEAGUES:

Mr. Chairman, Hans Alders, Honourable Ministers, Distinguished Delegates,

As Minister Hans Alders said, for me today is a day of great fulfilment. It was on an evening in November 1992 in New York, several months after the Rio Conference, that we were sitting and discussing how to move ahead. I remember asking him, and many of the distinguished ministers there, how we, in India and the developing countries, were to explain global environmental issues to our people. What is the face which we must give environment? How do we talk to them about the ozone layer - you don't talk to them about the ozone layer. How do we talk to them about global warming when they have to walk seven kilometres for drinking water, when there are no sanitation facilities?

I told them about a village in my own district, which has only bachelors, because no girl wants to get married into that village, because the closest source of drinking water is ten kilometres away. Any woman who gets married into that village would have to walk ten kilometres, maybe more, for drinking water. That is when I suggested, in November of 1992 (and from then, we are here today), that if we want to create an interface between the people of developing countries and the developed world and global environmental issues, environment has to become less abstract.

I am very happy to be here today, and as I said, for me today is a day of great fulfilment. I applaud the Netherlands and salute Minister Hans Alders, because three months after I saw him in November 1992 he wrote to me saying that the Netherlands would set into motion the subject of drinking water and sanitation from Agenda 21. After many official meetings, we are here today at this ministerial conference, and I am sure we will be able to give that face to global environment, which makes it comprehensible to people in developing countries, from Asia to Africa to Latin America. Therefore I would like to thank Minister Hans Alders very profusely on behalf of those 1 billion people as Mr. Serageldin said, who not only have no access safe drinking water, but most of whom have access to no water. That is, I think, what hits us so starkly in the face - sometimes, sitting in the Netherlands, or somewhere else in the west, it is not comprehensible.

Water is life, and sanitation is a way of life. Safe and wholesome drinking water and basic sanitation are vital needs - so vital are they to human health, and so fundamentally perceivable by human logic, that it is nothing short of a monumental tragedy that hundreds of millions of people continue to remain deprived of these.

It will soon be two years since UNCED. The world is alive to environmental issues as never before. In every corner of this planet, in every remote hamlet, even in the homes of illiterate villagers and urban slum-dwellers there is a palpable concern about the spectre of environmental disaster. But this concern seems to be expressed in ways that are diametrically opposite, depending on economic situations. While the rich and the well-off talk about ozone layer depletion, global warming and nuclear hazards, the poor man only understands that his crops wither in the parched land, his wife knows that she walks five kilometres or more daily to collect a few potfuls of water, they only see that their children are racked by water-borne diseases, the names of which they do not even know; and etching all this with greater harshness in the daily degradation and humiliation such families are subjected to in having to attend to their most basic daily absolutions in the public gaze, and in most unhygienic conditions.

We may know that many of these problems are related to climate change, shifting monsoon patterns, falling ground water levels and, indirectly, even ozone layer depletion, by its ill effects on vegetation. But how do we explain all these to the toiling villager and the deprived slum dweller? How do we convince him of the linkages between his daily problems and the larger environmental issues?

Ladies and gentlemen, to me, as Environment Minister of a country that is economically poor, that has 900 million people of whom almost 80% live in villages, drinking water and basic sanitation are among the most urgent and critical environmental issues of our day. It is not as though we in India are oblivious to our international responsibilities. Our role in the Montreal Protocol, the Basel Convention and their implementation at the national and international level is there for all to see. And yet I say: if any of these is to make sense, then we have to relate it to real problems faced by the people. It is by addressing the felt needs of the common man that we will be better able to tackle global environmental issues.

It is for this reason that I raised the matter of drinking water and basic sanitation before the UN General Assembly in November '92 and again in the UNEP Governing Council in May '93, and several times at regional and bilateral fora. We in India are gratified that the international community has come to recognize these needs as environmentally critical. This recognition shows how far we have come from the PREPCOMS of UNCED. We applaud the Netherlands for taking the initiative in organising this Conference. I entirely agree with my dynamic friend and colleague Mr. Hans Alders that what we need today is an 'action' programme and not the reiteration of mere platitudes.

The task before us is daunting, and it is only through innovative means that we would be able to deal with it effectively. It is not as though developing countries have not done anything. With the meagre financial resources at their disposal, they have an appreciable degree of success to their credit. In India, for example, we have succeeded in providing safe drinking water to more than three-fourths of our people.

But that remaining one-fourth itself translates into 200 million individuals! During the International Drinking Water Supply and Sanitation Decade of the '80s India invested more than 3 billion dollars (excluding external aid) in the rural drinking water programme. We need to double this investment during the '90s, if we have to achieve our goal by the turn of the century. In sanitation we have managed to so far cover 50% of the urban and 15% of the rural population. In parallel we have to ensure that our rivers and lakes, being major sources of water supply, are freed of pollution. The investments required for this would also be enormous.

If these are the dimensions of the problem which India faces, you can well imagine the requirements of countries which have a less developed technological base and greater inadequacy of financial resources than mine. A 'more-of-the-same' approach will not serve the purpose. We will have to develop a holistic approach to water and sanitation activities, emphasising their convergence with health, nutrition, education, agriculture and forestry. We must develop a concept of 'primary environmental care'. We talk of primary health requirements and primary education requirements - an integrated approach would necessarily involve the underpinnings of a primary environmental care policy.

National efforts in this direction must receive adequate support from the international community. We must share not just financial resources but also technical expertise. Perhaps for the many developing countries one of the most important contributions in the rural water supply sector was the development and modification of hand-pump technology by India which brought down the cost of supplying water to a tenth of the cost of the earlier projects. These modified hand-pumps are now being used in projects located in nearly 50 countries in the world. Similarly, the water-borne scourge of guineaworm has been almost eradicated in India by using a technique of control developed by an Ayurveda physician - Ayurveda is the traditional indigenous system of Indian medicine. We are eager to share our experience with the international community and cooperate towards achieving our goal.

The problems are not only of quantity of water, but also that of quality. Contamination of water sources by industrial pollution and even by salinization is becoming endemic. Dedundation of hill-slopes and soil erosion only exacerbates the difficulty. We in Asia and Africa and Latin America realise this all too plainly. It is not a mere coincidence that in India, 'environment' and 'forests' are linked into a single Ministry! We view forests not only as community resources supplying the basic needs of food, fodder and energy to millions of people and their cattle, not only as store-houses of unique and diverse bio-genetic material, but also as the key to solving many of our environmental problems.

Ladies and Gentlemen, it is my belief that a massive afforestation programme would help combat desertification and soil degradation, would arrest global warming and shifting rainfall patterns, would raise ground water levels and increase moisture in soils. It is my contention that a concerted effort at really gigantic levels of afforestation would be the single largest contribution to increasing the availability of water.

Differing geographical situations, climatic conditions, populations densities and cultural preferences make it well nigh impossible to define uniform patterns of water management. We will have to identify community-specific solutions. We must involve the poorest of our people, since they are the hardest hit by environmental degradation and live in the most vulnerable conditions; we must tap their native ingenuity and build upon it. Solutions imposed from above will only prove counter-productive. Even among the poor, it is the women who bear the brunt - whether to fetch water, manage domestic water needs, look after ailing children, or to suffer the daily indignities resulting from the lack of sanitation facilities. It is these women whom we will have to empower to allow them to articulate their suggestions which will have to be the basis of the systems we design.

In this task non-governmental organisations play a crucial role. Bureaucracies, by their very nature, are removed from the day-to-day social pressures. It is NGOs which can provide the critical linkages which could help government policy designers to empathise with the real requirements of the people and to weave them into policy. Our endeavours must be to see that all these organs of public life work for the public wealth.

International gatherings such as these will supplement national efforts if they motivate the transfer of financial and technological resources to the developing world for the basic needs of the people. We cannot talk of green-house gasses without talk of sanitation. If global environmental issues are not to remain in the realm of the abstract, then there must be no more parched throats, no more needless threats to infant life, no more daily assaults on human dignity. Circumstances and situations which are life-denying must be moulded into those which are life-giving..... As I said in the beginning: water is life, and sanitation is a way of life.

Thank you.

Special Statement by Mrs. Lilia Ramos, Representative of APPROTECH ASIA

Thank you Mr. Chairperson, distinguished Ladies and Gentlemen,

I bring the greeting and solidarity of NGOs from all over the world. I may not represent a country, but as NGOs we represent millions of people directly involved in the issues of drinking water and environmental sanitation.

It is significant that we who come from the NGO community are here in this ministerial conference as direct participants and not as mere interested observers. It is a positive sign. We take it to mean that the conference from the start recognizes the need to advance the participation of people in drinking water and environmental sanitation efforts.

Today, in many countries, people's participation, in the words of the UNDP 1993 Human Development Report "is becoming the central issue of our time." The growth of NGOs offers a dramatic opportunity for governments to enter into fruitful partnership with the governed.

The NGOs' potential for reaching those sectors of the population who need help most points to a dynamism in the NGO community. It is a dynamism that can and should be harnessed by governments.

There is today a recognition that people, through their organizations, are principal actors in their own development. NGOs are there to help them enrich that role by providing institution building, education and technical support. For its part, governments are asked to provide a positive environmental conducive to that process.

We firmly believe that if people are not given a direct stake, the solution and recommendations that will be arrived at in this conference cannot be sustainable. Without the community-based management of water and sanitation facilities, such facilities cannot be maintained in the long term without people-centred institutions. It will not be possible to devalue ownership and administration of water and sanitation programmes to the lowest appropriate level, nearest to the user.

Community-based solutions to water and environmental sanitation problems require much in the way of social infrastructure building. In simple terms this means improving community partnership and participation by building the capacity of all stakeholders, including the empowerment of communities, especially women.

There is a need to channel adequate investments for capacity building of grassroots organizations in rural and urban communities.

The participatory contribution of the NGO sector is in maximizing the use of these investments. Development, we must remember, is about people. The people, their grassroots organizations and their supporting NGOs are the principle moving force in social transformation.

The bottom-line expertise of NGOs is helping community people to become active agents of their own development.

In the implementation of water and sanitation programmes, NGO's are there as equal partners of government and multi-lateral institutions.

NGOs are not there as mere sources of data or as subcontractors of programmes. To consign them to this minor role is to squander their potential and misunderstand their expertise.

The stakes are too high.

The resources too limited.

And the time too short for us to work apart from each other.

Our involvement in this conference offers a solid partnership. Mr. Chairperson, let me finally say: Let us all work together as a team to translate our commitments into action in implementing AGENDA 21.

Let's feel the urgency and achieve the targets within the committed deadlines.

And may I remind this august body that deadlines are already set in Agenda 21.

Minister Alders, last week we toasted with you with polluted drinking water, reminding you of our task.

Now, can we toast with clear drinking water, assuring the people of the world with safe and clean drinking water.

PROOST!

SESSION 1: DRINKING WATER AND ENVIRONMENTAL SANITATION - THE PRESENT PLIGHT AND FUTURE CHALLENGE

**Statement given by Mr. Eng. Mohamed A. Alfusail
Chairman of the National Water and Sanitation Authority
from Yemen**

Thank you Mr. Chairman.

If I may, on behalf of the Yemen Republic Delegation, I would like to begin by congratulating you on being elevated to chairman of this meeting.

For a country like Yemen, water is our most important natural resource. We all know that the land of Sheba Arabia Felix has the highest rainfall in our whole region, and of course, this shows how important water is. The people of Yemen have always tried to use this resource in the most rational way without wasting a single drop. The famous Mahreb Dam, which was built more than 2000 years ago, is the first example of this. We use irrigation in our agriculture, but unfortunately, as in many countries, our climate has changed since that golden age 2000 years ago. We are now faced with desertification and the drying up of our aquifers.

In spite of the economic problems we are facing, the Government of Yemen still considers environmental protection and water supply as one of the most important aspects of its work. To provide drinking water to all the inhabitants, even those living in the desert regions and the most distant parts of the country, is not an easy task. We even have difficulties with water in our large centres of population, where the number of inhabitants is growing rapidly. We also use water for agriculture, which is one of the pillars of our economy, but in fact Yemen has to import a lot of its food to feed the population. The government has rebuilt the famous Mahreb Dam and many of the canals which brought water from there for irrigation projects. We are also undertaking other projects for irrigation, but in spite of this work we have many, many problems. We are not able to provide either drinking water or environmental sanitation to as much of the population as we would like because of lack of financial resources.

Mr. Chairman, we are very grateful to the Dutch Government for having called this conference, and I would like to make one or two very brief points. Firstly, we have this Action Programme which will guarantee the implementation of the decisions reached. Secondly, it is a question of political will. If that is there, then we will be able to uphold our commitments.

Commitments are for rich countries to help the developing countries so that they, too can profit from the state of the art technology which is available for water use and water resources management. Thirdly, the Yemen Government affirms the importance of regional cooperation, where water resources are of vital importance. This is important in order to put our natural resources to use for all of humanity. For this we must bring in the inter-governmental organizations and the NGOs, because with their help we will be able to supply drinking water and environmental sanitation for all.

Mr. Chairman, we are confident that thanks to international cooperation and the correct political will, this conference will be crowned with success, and we will be able to bear fruits which will influence the future of the whole human race.

Thank you Mr. Chairman.

**Statement on behalf of Radinal Moochtar,
Minister of Public Works of Indonesia**

Mr. Chairman,
Excellencies, Distinguished Delegates,
Ladies and Gentlemen,

Allow me first to express my deepest regret for my personal unavailability to join with all the other distinguished delegates in this Conference due to unavoidable pressures of duties at home.

After the end of the International Drinking Water and Sanitation Decade of 1981-1990, the convening of this International Ministerial Conference on Drinking Water and Environmental Sanitation is very timely and appropriate to reaffirm the commitment of the world community and each of the individual countries to provide water for all, which has not been achieved in the past decade campaign. But now, our commitment to drinking water and environmental sanitation is getting new momentum derived from Agenda 21 agreed at the Rio de Janeiro Earth Summit in 1992, which places the drinking water and environmental sanitation issue in the broader context of global issue of water resources management, environmental concern and sustainable development. I would emphasize this point and urge this distinguished gathering to take this into consideration in your deliberation, so that we will not be inclined to discuss the subject of drinking water and environmental sanitation again as a confined issue, but within the integrated framework of water resources management and sustainable development as envisaged in Chapter 18 of Agenda 21. We have therefore suggested in the International Steering Committee Meeting and I would like to again re-commend to this forum, to rename this Conference to "Drinking Water and Environmental Sanitation for Sustainable Development" to express the new spirit in dealing with the issues which differ from the previous Decade activities of the United Nations.

Indonesia has just completed our first Long Term (25 year) Development Era, and starting this 1st of April we are entering our second Long Term Development Plan and the beginning of our sixth Five Year Development Plan. Our second Long Term Development Policy, which was adopted by our National People's Assembly in March 1993, reconfirmed our national political commitment to integrated water resources management, necessary to support drinking water and environmental sanitation. Starting our sixth Five Year Development Plan, water resources development has become a separate

sector in our national development, while in the past twenty five years water resources development was attached to irrigation to support our national self sufficiency of rice objective. It is timely for water resources development and management to respond to the dynamics of our economic restructuring and the growth of our urban settlement. Integrated water resources management would secure the availability of adequate quantity and quality of water for drinking water and environmental sanitation, in addition to satisfy the broader need of water for agricultural development, industrial development, tourism development, and other economic development activities. We would consider the integrated water resources management as an essential point which we hope this Conference will adopt as the conclusion of your deliberation.

One part of the focus of our long term national development objectives is human development, especially development of the human quality and our Indonesian community. We have emphasized this point as well in our development of drinking water and environmental sanitation, that human development is our main objective. We have experienced the mistakes which we have made in the past, where drinking water and environmental sanitation were mainly considered as a physical activity without due consideration of the people, leaving many cases of unutilized or inappropriate infrastructure and facilities. The fact that human development has been overlooked in drinking water and environmental sanitation has wide implication on the attitude of all the actors managing and implementing water and sanitation entities, the planning, the choice of technology, the pricing and financing, and the whole management of the services. We are glad Mr. Chairman, to see that the Political Statement prepared for this Conference have taken due note of this human development dimension, which we strongly support.

Mr. Chairman, we are pleased to note that the Conference Output Document has emphasized the necessity of the world community to address the challenge of urban development faced in most of the developing countries. Indonesia is not an exception to the fact of rapid urbanization. The urban population in Indonesia is approximately 32% of the total population or 55 million in 1990, with a rate of growth of 5.4% per year between the last two censuses of 1980 and 1990, faster than anticipated. The rapid growth of the urban population is happening at a time when

our national population growth is declining from 2.34% in the 70's to 1.8% in the 80's. If the pace of growth is sustained, the urban population in the year 2010 will be approximately 52% of the total population or 140 million of the projected total population of 280 million. This places an enormous burden on the provision of drinking water supply and environmental sanitation to satisfy the basic urban infrastructure need of almost tripling numbers of our urban population, and the increasing absolute number of our rural population.

Before closing Mr. Chairman, I would like to stress that Indonesia is aware of the need to ensure that our drinking water and environmental sanitation programs are responsive to community needs and aspirations. We have adapted to develop a participatory approach of all the stakeholders in our drinking water and environmental sanitation development. In this spirit we welcome participation and inputs from as many as possible community organizations, the academic and professional societies, the private sectors, and to make use of activities of such youths and women organizations, such as boys scouts and neighbourhood women association (PKK). We believe that a fruitful and harmonious cooperation based on mutual consensus is very much in accordance with our national philosophy and way of life. As such, we would like to consistently aim at creating public responsiveness to work with and for the community, and a trust by the community towards public policies and actions.

With due consideration on what I have stated earlier, Mr. Chairman, I have great pleasure to express our endorsement of the Political Statement and related to the Action Programme on Drinking Water and Environmental Sanitation held in Noordwijk, the Netherlands which have been prepared as a result of this Conference.

Finally, Mr. Chairman, I would like to assure the Indonesia's strong commitment and support in fostering global and regional cooperation in the drinking water and environmental sanitation development in particular in implementing Agenda 21 of the Rio de Janeiro Conference in 1992.

Thank you, Mr. Chairman.

**Statement of the Palestinian Delegation
given on behalf of Mr. Ahmed Qurie**

Mr. Chairman, Ladies and Gentlemen,

Mr. Chairman, water is certainly one of the most important issues related to the reconstruction programs for economic development in the Occupied Palestinian Territories. Therefore, it is necessary to assert, once more, that it will be impossible for our people to secure their water requirements for development purposes before they restore their right in their national water resources which originate within the borders of their territories, as well as their share in the Jordan River Basin, as full riparian partners in the basin.

It may be useful, in this instance, to give you some facts and figures on the difficult conditions suffered by our people since 1967 in the realm of water:

1. The share that our people obtain from our total renewable water resources and actually use does not exceed 12%, whereas the other 88% are over-exploited by Israel for its use inside the green line and for that of Israeli settlers in the Occupied Palestinian Territory.
2. Since 1967, we have been completely deprived of our rights in the waters of the Jordan River due to Israeli policies practised upstream of the river basin.
3. About 35% of urban areas and 70% of rural areas lack water supply networks and the relevant technical and sanitary equipment. In addition, water loss in some of the old networks reach about 40% in some areas. Moreover, in the Gaza Strip, pollution hazard and high salinity now threaten more than 70% of groundwater aquifers.
4. In the agricultural sector, the total irrigated area in the West Bank doesn't exceed 5% of total cultivated area, whereas it constitutes about 11% of total irrigable land of both the West Bank and Gaza Strip, taking into consideration that the agricultural sector is the backbone of Palestinian economy.
5. As the level of services of the wastewater disposal utility is in an extremely downgraded condition in most areas, and almost non-existent in rural areas, domestic wastewater cannot be disposed of or treated for re-use in irrigation. Thus, the actual conditions in this sector threaten environmental safety and public health, particularly in the Gaza

Strip where groundwater is subject to infiltration by organic matters produced by sewage that collects in natural pools.

I don't wish to dwell on this topic and to expand further on its detail, for I am convinced that the delegations participating in this conference are quite well acquainted with the general conditions in the Occupied Palestinian Territory. In fact, several international missions have visited the area and have submitted detailed reports on this subject.

Ladies and gentlemen, the question of water has been of major importance in the Arab-Israeli conflict. Over the past 40 years, the region has witnessed situations of extreme tension due to conflict over water resources, particularly the Jordan River Basin. These conflicts over water have led to armed confrontations, the most important of which being the 1967 war which ended by Israeli occupation and control of Arab territories and water sources therein.

The conflict might persist and other armed conflicts over water might break out in the region in case of continued occupation, continued denial of the others' rights, continued pillage, over-exploitation, and deviation of water courses for the benefit of one of the parties at the expense of others, and continued lack of respect of international water laws on equitable and realistic sharing of common water resources.

With the natural increase of population, demand for water will increase proportionately for development purposes. Concern over the future will increase accordingly, leading most likely to more conflicts over water resources than in the past. This, of course, could happen unless a comprehensive peace is reached, leading to serious and fruitful cooperation to protect and enhance available water resources and to explore additional water resources.

Thank you.

**Statement by Mr. Olaf Johansson,
Minister for Environment from Sweden**

Mr. Chairman,

I wish at the outset to commend you personally and your country for this very timely initiative, to put drinking water and environmental sanitation right in the heart of the global environmental agenda. I expect the results of this important conference to be a major input to our thematic discussion on freshwater problems at the forthcoming CSD session in May this year.

Mr. Chairman, in the past, major investments have been made in drinking water supply in developing countries, but the resulting health benefits have been severely limited by poor progress in sanitation. Time is due to rectify this situation! I would like to state that: "Lack of sanitation is a fundamental denial of human dignity, and must be seen as a major environmental threat to water resources and life supporting systems." The issue of environmental sanitation must therefore be high on our agenda for sustainable development.

The vicious circle where man contaminates his own environment and is infected by the same, can be altered. The causes are basically known and solutions exist. It is encouraging to note at this meeting that environmental sanitation is given due recognition. Further work is, however, required to create the necessary supportive environment for universal access. In this context the recent initiative by the Collaborative Council to emphasize environmental sanitation promotion and implementation is encouraging and deserves all support.

Mr. Chairman, inadequate or inappropriate sanitation is a problem in all countries, including Sweden.

In order to minimize the harmful effects on health and environment caused by our own highly industrialized and resource-consuming society Sweden is now actively pursuing a policy of "ECO-CYCLE-PRINCIPLE". To the water management sector this implies that less freshwater (and energy) will be used and the waste recycled.

Although we meet the strictest standards of hygiene and environmental demand, we do not consider Sweden's present water supply and sewage treatment systems to be consistent with sustainable development on a long term basis. We therefore actively support the development of new water saving technologies for water supply as well as environmental sanitation -

including dry sanitation systems.

In Sweden as well as in all other countries around the world the "ECO-CYCLE-PRINCIPLE" is the sustainable way of using natural resources.

Mr. Chairman, our knowledge of the freshwater situation in a global perspective is insufficient and incomplete. In order to take appropriate action we must expand and refine our understanding and perceptions of the present water resources situation as well as future demand. We therefore welcome the recommendation in the Action Programme to invite the United Nations system to embark on a more consolidated effort to assess the global fresh water situation, as well as initiating work on projections of water needs and availability.

It is my intention to pursue this idea at the forthcoming CSD session, as one of the possible concrete results of its review of the freshwater issue. Sweden is prepared to contribute this global water assessment initiative. I sincerely hope other countries will join us in this effort.

**Speech given by Mr. Archebald M. Mogwe
Minister of Mineral Resources and Water Affairs
Botswana**

Thank you Madame Chair.

I am not going to do what might seem to be a litany, or read a paper. I merely want to say that we, from dry countries, find some problems of pollution because we cannot have any water borne systems due to lack of water. In our developing countries we use pit latrines, which in themselves pollute the water resources. I would like to know how other people deal with this problem in their own countries. I certainly would be interested to know what contribution can be made in this area, because we are aware that use of the pit latrines in sandy places ultimately pollutes our water resources when the rains come. That is the contribution I would like to make.

Thank you.

Statement of Hungary
given on behalf of Dr. Janos Gyurkó
Minister of Environment and Regional Policy

Honoured Conference, Minister Alders, Madame Chairman,

The Dutch Ministry of the Environment is taking an exemplary course of action, when initiating wide international cooperation to solve one of the basic problems in the world: drinking water and environment sanitation.

Unfortunately there is no country where this subject will be resolved completely and satisfactorily at the end of the twentieth century.

In the developing countries the supply of clean water is the greater problem, while the developed countries face the problem of protecting water resources. In solving the latter problem, the most important factors are the reduction and prevention of pollutant discharge by selecting and developing appropriate technologies and the treatment and disposal of generated waste waters.

In Hungary 96% of flowing waters arrive from upstream countries. Therefore international cooperation is extremely important to us.

The majority of our surface waters belong to the second class of water quality, that is, the water demand of population and economy can be satisfied with a relatively simple water treatment technology.

The subsurface water resources extending downward to great depths form a significant natural resource. Those waters are in general of drinking water quality.

65 Percent of subsurface water resources are situated in vulnerable geological environments, which means that the pollutants disposed on the soil or near to the surface sooner or later might enter the stratum waters. This risk is increased still further by the fact that along with the expansion of water supply, the volume of generated waste waters increase also considerably.

As a result of improper development, in contrast to the 94 percent of the population has access to drinking water, but only 50 % of sewage is treated, of which 33 % is treated biologically.

Those figures clearly representing the importance of the problem, because the infiltrated waste waters at the nonsewered settlements result in the pollution of subsurface waters. This already occurred over a significant area mainly in the first aquifer.

The rehabilitation of polluted areas is not only a technological problem but also an economic burden.

A similar potential danger is caused by fertilisers and chemicals used in agriculture, as Hungary is an agrarian country and thus a considerable part of its territory is cultivated.

The extraction of subsurface waters can change the direction and speed of flow in the hydrological system, which in turn increases the risk of pollution from the surface.

In the interest of sustainable development we have to protect our surface and subsurface waters from pollution. For this, the exchange of experience on management and technologies in the framework of international cooperation is of vital importance.

We hope that the experiences of the developed countries and their joint efforts with the international community will efficiently assist us in solving our grave problems.

Thank you for your attention!

**Statement by the Pakistan delegation
given by Mr. Mir Altaf Ali Bhayo,
Parliamentary Secretary for Environment**

Mr. Chairman,

On behalf of the Government of Pakistan and myself, I congratulate the Government of the Netherlands, with which we maintain close friendly relations, for organising this conference in Noordwijk. It has provided us an excellent opportunity to sit together and agree on a policy framework and an action programme for attaining objectives set out in the Agenda 21 concerning the vital drinking water and environmental sanitation sector.

This initiative on the part of the Government of the Netherlands is commendable on many accounts, namely that: (a) it will be the first ever tangible contribution to the work of the UN Commission on Sustainable Development, (b) the quality of the documents prepared for this Conference are excellent, (c) it provides a new resolve to finding solutions to this problem which is crucial to life on earth and well-being of the people. We wish all the success to these efforts.

Mr. Chairman, Pakistan, like many other countries of the world is faced with the growing pressure on water. Due to the growth of population, expansion of irrigated agriculture, and pace of urbanization and industrialization, Pakistan which at times seemed to be self-sufficient in water resources with an annual quantum of 140 million acre foot with 3 major storage reservoirs, 19 barrages, 12 large interlinked canals, 30,000 miles of irrigation canals, 1 million miles of water course and 290,000 tubewells, is facing the crunch of meeting demand of drinking water supply and sanitation for its fast increasing population of about 120 million. The affordability of these services by the bulk of the population also remains to be the major issue of concern.

Mr. Chairman, Pakistan is determined to meet the basic needs of its 120 million residents. The Government is progressively increasing financial allocations for this sector. Participation of communities and non-governmental organizations in this endeavour is being encouraged. New low-cost sanitation initiatives, such as Orangi Pilot Project, Karachi, decentralization of water supply and sanitation programmes at district/docal levels and Agha Khan Rural Support Programme, are being supported by the Government.

At the Government level, we have prepared a National

Conservation Strategy for Pakistan with emphasis on resource conservation, pollution prevention and sustainable development. A Federal Environmental Protection Law has been enforced under which a system of Federal and Provincial Environmental Protection Agencies have been created. Federal EPA has already notified minimum standards for municipal and industrial effluents. We hope these actions of the government will bring about desirable results in the near future.

Mr. Chairman, Pakistan is a member of the CSD and also a participant of Global Environmental Facility. It will support all viable recommendations of this Conference when presented to these fora. We will urge the Ministerial Conference to give due coverage to the additional funding mechanisms for the Drinking Water Supply and Sanitation Sector.

In concluding my remarks, let me again thank you, Mr. Minister, for the hospitality being extended to us ever since we came here and the efforts of the staff of the Ministry of Housing, Spatial Planning and the Environment in making this Conference a great success.

**Statement by Mr. Khabibullayev,
Chairman of the State Committee for Environment
of Uzbekistan**

Uzbekistan: Ecological Problems

The territory of Uzbekistan is 447 thousand square kilometres. Almost 3/5 of its territory consists of steppe, deserts and semi-deserts while the rest are fertile valleys along Amu-Dariya and Syr-Dariya, two principal rivers. The population is 22 million inhabitants, 60 per cent of which live in the countryside.

Agricultural products comprise 28 per cent of the net material output. Cotton, comprising 40 per cent of the overall costs of agricultural products, is the main crop. Uzbekistan is the fourth largest cotton producer in the world, and is the third in its export.

Industrial production, occupying 33 per cent of the net material output, is based mainly on processing of agricultural raw materials. Light industry products amount to 39 per cent of the total volume of output, 13 per cent occupies processing of agricultural products, 41 per cent goes to the heavy industry, and the rest is fuel and energy complex.

The Republic is rich in natural resources such as gold, petroleum, gas, coal, silver and copper. It is the seventh in the world production of gold, the third in natural gas among countries of the Ex-USSR, and is one of the ten major world gas exporters. About 65 tons of gold are produced annually that is 1/3 of the total USSR gold production. In 1993 Uzbekistan produced 45.8 billion m³ of natural gas, 4.0 million tons of petroleum.

Uzbekistan inherited an obsolete economic structure and technologies that cause excessive pollution and irrational use of resources.

Uzbekistan having been part of the ex-USSR, was considered "the main cotton base of the country". That left its negative imprint not only in farming, but also in development of industry. The latter was not orientated for complete processing of raw materials, it was mainly aimed at semi-processed manufacturing (cotton fibre, caprolactam, non-ferrous metals, etc.). The most important ecological problems with which Uzbekistan is confronted concern control of water resources and quality of water.

Implementation of large-scale plans for irrigation and intensive use of water resources caused irreversible drying up of the Aral Sea, and the disturbance of ecological balance in the region. During the last 30 years the Aral Sea level lowered 16 m, its area halved, and the volume reduced 3.4 times; the sea area is now only 277 km, salinity reached 40 per cent, the sea has lost its fishing and transport importance. The sea level collapse caused the barring of about 20 thousand square kilometres of ground, which became the reason for new resources of salt and dust transport, and increase of wind-erosion processes.

The drying up of the Aral Sea caused desertification of the bordering areas and degradation of the latter. This is one of the greatest ecological disasters mankind has caused in this century.

Having cotton as the single crop put obstacles in the way of introduction of crop rotation, development of forage reserve for cattle-breeding, and required fertilizer application in high doses as well as application of pesticides. In 1980 consumption of pesticides reached 34 kg. per hectare.

At the same time efficiency of irrigated hectares was always low. Only 30-40% of the potential of irrigated land was used, the increase of gross agricultural output increased 1.4 times, within the period of 1975-1990, which was mainly the result of development of new irrigated lands.

Economically unjustified farming structure was the main reason of intense water managing situation, which is actually shaping over the background of total exhaustion of our own water resources. This was the result of great specific consumption for irrigation and washing of camps (13.5 thousand m³/Ha), low efficiency of irrigated systems (64 per cent), prevalence of imperfect high water consumption, and superficial methods of irrigation in furrows (99 per cent).

River pollution with discharges from agricultural and industrial production results in pollution of drinking water and causes the most critical ecological problems in this country. Low quality of water is the reason of the bad situation in the public health care.

More than 50 per cent of irrigated lands are subject to salinization and erosion. The soils with low and very low humus content (from 0.4 to 1 per cent) constitute about 40 per cent of irrigated lands. Water and wind erosion threatens to 20 per cent of lands. The excessive use of pastures and no use of crop-rotation damages the pastures. Six million hectares from the total of 22 million hectares of pasture are subject to wind erosion, and 3 million hectares are subject to water erosion.

The main problems of air pollution are related to industrial discharges and autotransport. Among the most dangerous are influence of lead dust discharges by enterprises of non-ferrous metallurgy and means of transport using petrol containing lead, hydrogen fluoride discharged by the Tajik Aluminium Plant, and different organic compounds, including chloride hydrocarbon.

Accelerated development of land and water resources also stipulated dynamism in development of mineral and raw resources of the Republic. Mining along with imperfect technologies of rock processing, were accompanied by accumulation of amounts of solid and liquid discharges, which are the source of pollution of soils, surface and groundwaters, and the air. Every year 100 million tons of different waste, half of which is toxic, are formed in the Republic.

Only a small part of the waste is used as secondary raw material, while the principal part of waste is placed in storages which in total volume is more than 2 billions tons.

The unwise economic activity, and the related change for the worse in the quality of environment, resulted in worsening of environment of wild animals, reduction of their natural habitats, disappearance of species or reduction of their numbers, and worsening of reproduction.

The first edition of the Red Book of the Republic included 163 species of flora, while in the second edition of 1993 there appeared 301 species. Now the Red Book of the Republic includes 32 species of animals, 31 of birds and 5 of fish.

The area of forests and pastures is reduced, and their degradation is observed.

Actual pollution of environment and the damage caused to natural resources are after-effects of the former economic policies, which were oriented to achievement of planned figures in the volume of production at the expense of the environmental quality.

Those policies were combined with the price formation system when natural resources have been underestimated, and the environment in general was considered a production factor free of charge.

There were no appropriate ecological aims and normative acts or realistic norms, nor was there a managing system or framework for environmental control within which such norms would be assured.

Due to transition from the centralized system of economic management to the free market economy the prices of natural resources have been revised, the change of proprietors is being exercised, and more strict budget regulations are being introduced, which will influence the efficiency of use of resources and the structure of economy, as well as the future environment situation.

The creation of a legal and regulatory base for environment protection, improvement of the existing ecological infrastructure, revision and change of ecological norms and regulations, and strengthening of the systems of ecology control is also in process.

The State Committee for Environment Control of the Republic of Uzbekistan needs a short-term plan of assistance from International organizations and states with developed ecological infrastructure. It needs to develop an effective system of data control for monitoring of discharges, as well as environment control, especially in unfavourable areas; to acquire necessary equipment, spare parts and computer programs; to train personnel particularly specialists for adjustment of the former regulations to the demands of the free market economy, research of economy of natural use, use of natural resources and their control, acquaintance with modern methods of control and use of new technologies.

Speech given by Dr. A. Szöllös-Nagi
Director, Water Sciences
United Nations Educational, Social and Cultural Organization

Thank you Madam Chair.

It is an honor for me to address you here today on behalf of the Director General of UNESCO, and to convey to you his best wishes for success. Unfortunately, due to prior engagements, he is not able to address the Ministerial Conference himself, however, he would like you to know that UNESCO attaches special importance to this meeting and regards it as a major step towards realizing UNCED Agenda 21. As you know, UNESCO is the specialized agency within the UN system which has the mandate for science and education, including the environment. Water and the environment have always been high on UNESCO's agenda. As a spinoff of UNESCO's arid zone programme in the late fifties, it has become widely recognized that water is going to be one of the most capital issues humankind will face around the turn of the century. Not only will the quantity and quality of water become critical, as is already the case, but also the role water plays in society.

Water has striking cultural dimensions that span history. Water is also the lifeblood of living organisms on earth. The attitude of humanity towards water depends on the abundance of water. If plentiful, it is accepted by some as a gift of nature, freely available, whenever, and for whatever purposes needed. If scarce, it becomes a most valuable commodity, an issue of conflicts, and even disputes between the users. Civilizations have always been strongly dependent on water. By now, it should be clear to everyone that the converse is also true. Wider water resources depend upon civilization, or more precisely, the civilized use of a finite and vulnerable resource. This two-way feedback underlines the strong need for cooperation amongst different players in the water game. This cooperation is composed of different stages ranging from the regional to the global level. This, of course, requires well-coordinated international cooperation in order to understand the processes occurring in the water cycle, assessment of surface and groundwater resources, and the adoption of an attitude that maintains the quality and quantity of water resources for generations to come. Recognition of this led to the launching of the International Hydrological Programme (IHP), with the basic objective of improving the scientific and technological basis for the development of methods and the human resource base for rational management of water resources.

Recognition of the dangers of a possible climate change on the distribution of water resources in space and time as well as a strong need for sustainable development set the theme for the present phase of the programme, which was directed towards various topics of hydrological research in a changing environment with emphasis on managing water resources for sustainable development. As one of the least understood parts of global change is the land face of the hydrological cycle, studies on the interface processes of water transport through the atmosphere, vegetation, and soil system must be carried out at different scales. In a global context there is a strong need to improve the science of global water resources assessment as it has also been pointed out in the draft recommendations of this conference. Within the framework of IHP there is an ongoing international effort to produce an inventory of the world water resources. Therefore, any addition to this activity is certainly most timely and welcome.

In a post-UNCED era we must come to appreciate more fully that our rapidly changing and increasingly vulnerable environment will only be protected if there are legal, organizational and scientific efforts. If we look only to the short-term future, there will inevitably be an increase in conflict between development and the social and environmental aspects. If, on the other hand, greater consideration is given to an understanding of the need for scientifically based integrated development of our resources with consideration of socio-cultural aspects, and careful thought to the problem of protecting our natural habitats for future generations, then, rather than being points of conflict, those aspects become extremely important considerations. Without doubt, the need for hydrological science as a base for integrated water management will increase in importance, and this is what the International Hydrological Programme at UNESCO has set out to achieve, with the one overriding goal of helping nations to help themselves.

Thank you Madam.

**Statement by Mr. Ole Plougmann,
Minister for the Environment from Denmark**

Thank you, Madame Chairman,

First of all I would like to say that my delegation welcomes very much the initiative by the Dutch Government to follow up on the important freshwater issue in preparation of the next session of the Commission of Sustainable Development.

Madame Chairman,

In the UNCED process the Nordic countries launched the so-called "Nordic Freshwater Initiative" which identified two main principles as central to improved water resources management in the future, namely:

- firstly, that water and land resources should be managed at the lowest appropriate levels, and
- secondly, that water should be considered as an economic good, with a value reflecting its most valuable potential use.

The basis for those principles - reflected in Chapter 18 of Agenda 21 - was the recognition of water as a finite and vulnerable resource which should be managed in a holistic and integrated manner.

Madame Chairman,

Considering the plight of the millions of people without access to safe water and adequate sanitation the sectors of drinking water supply and sanitation continue to be one of the most important areas of development assistance. It is, however, important to recognize that this sector was one of 7 programme areas in Chapter 18 of Agenda 21, and that the most serious problems from a water resources perspective are associated with the use and pollution of water in the agricultural and industrial sectors.

Therefore, Madame Chairman, we would like our discussions to be seen in this overall perspective of water resources development and management. Thus, ample water supply should not be the sole objective. Concepts such as conservation and sanitation are of equal, if not at times of higher, importance. The drafts before us do seem to reflect this. With respect to the specific items of the agenda for our meeting my delegation wishes to draw your attention first and foremost to:

- the increasing problems of pollution of water resources, particularly groundwater, from toxic

pesticides and other agrochemicals. These problems need to be addressed forcefully. The least harmful pesticides should be identified, and pesticides proven harmful to surface and ground-water should be eliminated. We are happy to see this reflected in the Action Programme in a proper way.

- Secondly, we would like to emphasize that at the international level priority should be given to building on existing institutions, structures and programmes rather than creating new institutions and costly programmes.

Finally, Madame Chairman, allow me to draw your attention to the recent international Copenhagen Workshop on Health, the Environment and Sustainable Development. Like this conference the Copenhagen workshop was preparatory to the next session of the Commission on Sustainable Development, and I think that many of the workshop's recommendations would appear relevant for our discussions on water, sanitation and health issues. Copies of these recommendations are available outside this room.

Thank you, Madame Chairman.

**Statement by Mr. Mohamed Mehdi Mlika
Minister of Environment of
Tunisia**

DRINKING WATER AND SANITATION IN TUNISIA

I should like to express my sincere thanks to Mr. Alders, the Minister of Housing, Planning and Environment, for his kind invitation and for the opportunity he is giving us to meet each other and discuss a matter as critical as the issue of water.

Mr. Chairman,
My country, Tunisia, is a Mediterranean country in northern Africa and is an arid country, characterised by the scarcity of its water resources and its extreme climatic variation, both in space and time.

Its water resources are therefore precious; sound water management is essential to guarantee lasting development for the country.

Drawing from its ancient culture, modern-day Tunisia is one of the few developing countries whose approach to water resources management is successful. Despite the climatic hazards, water in Tunisia is ceasing to be a restrictive factor in the economic and social development of the country.

Every year, an average of 33,000 million m³ of rain falls over Tunisia. Part of this, estimated at 2,630 million m³ per year, makes up the flow in all the wadis in the country. Part of the rest percolates through to replenish the groundwater table and 45% of the deep layer. The rest evaporates.

The useful potential of these flows is estimated at 2,100 million m³, using dams, hillside dams or hillside lakes; all these structures can boost supplies. The rest of the flow (0.5 million m³) can be mobilised by the sewage farms, by diversion, and for water and soil conservation activities (CES), which are improving percolation behind banquettes and other structures. The average salt content of the Sidi Salem dam is 1.56 g/l, all the tributaries of the left bank of the Medjerda, the Ichkeul and the far north have salt contents of around 1 g/l. The Mellègue and Bir M'chergua dams have a salt content of over 2.5 g/l.

The useful potential of the underground strata is estimated at 1,720 million m³/year, 0.58 thousand million of which comes from groundwater tables. 30% of the potential of groundwater tables contain a salt content of over 4 g/l.

Treated sewage is increasingly providing a new source of water, which can be used in farming. The potential is estimated at 100 million m³/year in 1994; some of it is used for irrigation (6000 ha), coupled with a sanitation programme.

In 1994, Tunisia has 17 dams, 34 hillside dams, 180 hillside lakes, 2,000 deep bores, 85,000 surface wells, 48,000 of which have power-driven pumps, and 50 natural springs. These facilities mobilise 96% of the potential of the groundwater table, 82% of the deep layer and 61% of the surface water.

The last decade of this century (1990-2000) will see the completion of an ambitious programme for the management, mobilisation and control of water resources. The level of mobilisation of surface water will reach 90%-100% for groundwater - and continued activity in the field of water economy and the rational management of this resource, through all the stages of its natural cycle, will be strengthened.

The pumping system in Tunisia is regularly supplemented by a wide range of equipment and is increasingly called upon to satisfy the country's needs. The intended objective is to avoid irreversible deterioration and to maintain its usefulness over time.

It is clearly understood that the criteria to be applied for determining the conditions for long-term water resources management cannot yet be definitively established. However, within the framework of the Water Code (March 1975) and during the preparation of the Steering Plans for the Utilisation of Water in the North, Centre and South, a number of protective principles were adopted. These were:

- to protect water layers from the infiltration of seawater and salt water from inland lakes;
- to protect the underground tables from excessive recession;
- to guarantee that the balance is maintained on the basis of specific studies;
- to protect water layers and wadis from pollution.

Non-renewable fossil strata located in the south

represent 55% of the deep layer potential; a method of exploiting them was established by adopting the following rules:

- Avoiding a deterioration in quality and excessive, non-economical recession.
- Using the resource only to protect existing oases and restricting the creation of new oases, bearing in mind the maximum capacity of the pumping system.
- Adopting a durability period which observes the maximum capacity limits over two generations (about 60 years), in the hope that scientific progress during this time will enable an alternative solution to be found.

As far as surface water is concerned, it is clear that the current generation is benefiting from the best dam sites. Once the dams, which have a service life of between 50 and 100 years, have been decommissioned, future generations will be able to choose between the removal of sludge from existing dams or the construction of more expensive replacement dams.

As far as management of the demand for fresh water is concerned, the global situation is not yet causing concern, nor will it over the next twenty years, according to the forthcoming study entitled "Water Economy 2000".

In Tunisia, 85% of water resources are used in farming; the demand for water in urban centres is increasing by an average of 2.5%. The improvement in farming efficiency will in future mean that additional resources are available, on top of the newly developed resources.

The supply of drinking water to rural areas reached 67% in 1993.

The pricing policy pursued by the National Water Operation and Distribution Board (SONEDE) guarantees fair and interdependent distribution among the different consumer groups.

The interconnection between the major conveyance networks in the various regions of the country improves the ability to regulate the system, with shortfalls in certain regions being compensated by excesses in others.

The stabilisation of the balanced equation will in future be increasingly based on rational demand management because the facilities for utilising new resources (water

layer restocking dam, water recycling, the purification¹ of brackish water) will become rarer, more expensive and less productive.

Demand management in Tunisia takes several forms. It has been used as a component of the steering plans for water utilisation and in project design through the introduction of quotas and restrictive technological tools (pumping station capacities, demarcation of amenities for tourist and industrial zones, surface area of irrigation zones). However, suburbia is still outside the scope of this planning, which is thought to be reduced by dynamic rural development programmes.

In Tunisia, use of the pricing mechanism and of a charge per m³ for urban water and irrigation have been of great help in leading to improved demand management and in considerably enhancing the value of water resources.

Equally, publicity has increased public awareness of the scarcity of the resource and the need to protect it.

Demand management is facilitated by legal instruments relating to water resources. The Water Code (31 March 1975) enables central and regional services to manage the resources, issue permits, establish protection and prohibition zones and to monitor the management of watering places.

In order to plan pumping operations, individual Regional Steering Plans have been drawn up for the whole country, incorporating uniform river basins.

Furthermore, regional steering plans for rural drinking water covering each delegation have been drawn up and have helped improve rural supplies of clean water.

As far as the control of waste water is concerned, Tunisian experience in the field of urban sanitation began in 1974 with the establishment of the National Sanitation Service (ONAS) to meet the needs of the entire country for the collection and treatment of urban and industrial waste water.

Since that year, over 5,000 km of sewers have been laid and over 40 purification plants have been built and commissioned. Currently, 76% of the urban population is connected to the ONAS network, 120 million m³ of waste water were collected in 1993, 84% of which was treated in the purification plants.

In the area of industrial water disposal, the principle of "the polluter pays" has been adopted by the Ministry of the Environment and Town and Country Planning. Industries are now obliged to pretreat

effluent in accordance with national standards; further treatment is the responsibility of ONAS at its purification plants. The National Environmental Protection Agency, in its turn, monitors and assists industry. A special fund, known as the "ANTI-POLLUTION FUND" has been made available to industries to help them pay for pretreatment systems.

In Tunisia, the efficient use of water resources has been a major preoccupation at all levels. Attempting to achieve a satisfactory yield from the pumping infrastructure is an ongoing activity which depends chiefly on how that infrastructure is operated, serviced and maintained.

SONEDE is encouraging prospecting and diagnostics to trace and evaluate losses in its networks. Each district now has a team responsible for water economy and leak detection. The method used is continually improving and will enable SONEDE to reduce the overall rate of leakage from 29% to 27% by 1996.

In 1993, SONEDE distributed 280 million m³ but only invoiced 209 million m³.

With respect to irrigation, increasing efforts are required to improve efficiency. Publicity and incentives, in the form of credit and subsidies, has brought about an improvement in the situation, leading to an efficiency level of 65%.

In all cases, the improvement in services rendered to users, the efficiency of servicing and maintenance activities, as well as a modified pricing policy, have definitely influenced efficiency.

The introduction of modern irrigation technology (10,000 ha of localised irrigation and 100,000 ha of sprinkler irrigation) has enabled much progress to be made in this sphere.

Gravitational irrigation and individual irrigation by surface wells are still lagging behind in this field, especially with respect to new irrigators (the current efficiency level is estimated at 50%).

The investment required to guarantee water economy per plot during irrigation varies between 3,000 and 700 dinars. This investment is granted when the cultivated land is profitable or when the cost price per m³ of water is high (over 0.120 Tunisian dinars per m³). Since the cost price per m³ of water is an increasing burden, farmers are currently tending to optimise their choice of cultivated land and to explore other avenues for their speculative farming activities.

Impact studies have been performed to identify essential compensatory activities needed to protect the integrity of the ecosystems and the biological diversity.

The monitoring of water layers, the inspection of operating methods and the creation of prohibition and protection zones mean that over-use and saltwater intrusion can be prevented.

The dam impact study has enabled compensatory measures to be identified so as to protect the hydrological and ecological balances upstream and downstream of dams (Sidi El Barrak dam, Barbara dam, etc.).

The National Environmental Protection Agency (ANPE) is currently carrying out impact studies on dams which will be constructed upstream from the Ichkeul in order to find out more about the mechanism of the system and to be able to identify reliable compensatory measures.

In Tunisia, the General Water Resources Division (DG/RE) is responsible for evaluating groundwater and surface water resources. It is also responsible for monitoring the potential of water resources. It has a dense network of measuring stations (rainwater measuring station, pumping station, piezometric station) covering all the country's basins, as well as a basic databank and several modern devices for studying, simulating and analysing the water layers and wadis of Tunisia.

The maximum capacity of each groundwater table enables the number of useful wells to be determined. If the maximum capacity is reached, a prohibition or protection decree is issued.

During periods of water shortage, the Ministry of Agriculture maintains the balance between drinking water and irrigated zones.

Tunisia's experience of institutional reforms to improve water resource management stretches back many years.

The decree of 24 May 1920 provides for a special water department, a farming and industrial pumping fund and a water committee.

The decree of 3 August 1933 governs the preservation and use of public water.

Law no. 75-16 of 31 March 1975 promulgates the Water Code. This law has 11 chapters dealing with public pumping, the preservation and regulation of

pumping water, water use rights, constraints, permits and concessions, drinking water economy, agricultural use, the fight against water pollution, the fight against flooding, consumers' associations, jurisdiction and fines.

The Ministry of the Environment and Town and Country Planning and the bodies under its supervision are responsible for inspecting pollution sources which could affect water resources.

The current legal basis and the batteries of rules and institutional frameworks have facilitated the implementation and completion of projects defined as part of this integrated planning.

Tunisia also has solid experience based on the participatory approach of the beneficiaries. The creation and consolidation of shared interest associations (AICs), particularly in the fields of irrigation and rural drinking water, have enabled the beneficiaries to be more involved in the management and operation of the infrastructure (1400 AICs are currently operational).

In Tunisia, the simplest and least expensive water resources have so far been mobilised. Future mobilisation will require high investment, complex studies and more sophisticated technology (transfer, recycling, desalination, water layer replenishment, biological and chemical treatment). The management and mobilisation of the resources were essentially (sometimes solely) affected by the projects, while needs were considered an absolute constraint which had to be satisfied.

In the future, pumping in our country will essentially be focused on managing demand and improving the performance of our system of water resource mobilisation.

The control of pollution caused by urban waste water is already an asset which should be preserved and reinforced, particularly in the rural environment, by adopting appropriate, less expensive sanitation systems where effluent can be recycled and processed.

The control of industrial pollution, on the other hand, should be based on a preventive approach, through the use of clean technology adapted to the capacity and quality of our water resources.

Due to the limited time available, I will not get embroiled in details here; a document is available for delegations who would like to know more about Tunisia's experiences. However, I should like to stress

the importance of international cooperation and solidarity in solving the world's water problem. We are all affected, either by its quantity or its quality, often by both.

I should like to take this opportunity to pay tribute to countries such as Sweden and the Netherlands which have accepted the principle of rescheduling the servicing of the debt for environmental protection and water resources projects. The Netherlands agreed to reschedule the Tunisian debt to its country for 1992. The amount this released enabled us to install sanitation networks in five working-class districts and to solve solid waste problems in other areas. Our hope is that this initial experience with the Netherlands will continue, thus putting international solidarity in protecting the environment into practice.

Thank you for your attention.

**Statement given by Vice Minister Mr. Li Zhendong
Ministry of Construction,
People's Republic of China**

Mr. Chairperson
Distinguished Delegates,
Ladies and Gentlemen,

First of all please allow me to express my appreciation and admiration to Mr. Minister H. Alders for hosting this Conference. The issue of water supply and sanitation is in fact an issue of environment which affects the existence and sustainable development of human beings.

It is also a symbol of the economic development and civilization level of a country, so it is arousing the universal concern of all countries in the world. The Chinese Government attaches great importance to the issue. In our constitution the environmental protection is clearly identified as our basic national policy. China has promulgated "Environment Protection Law", "Law of Prevention and Control of Water Pollution", and "Water Law" and many other laws as well, as the related regulations and rules of the departments. These laws are being implemented and enforced.

China has more than 1.1 billion people, which equals about one fifth of the world population. Our government has always believed that to deal with our own problems well will be a big contribution to the international community. Therefore in our Eighth Five-Year Plan (1991-1995) for the national economy and social development, our government has listed the urban and rural water supply facilities as the priority of our infrastructure development. Since the founding of the People's Republic of China, particularly since our country carried the reform and open door policy, our water supply has seen rapid development. The capacity of city water supplies increased quadruple between 1980 and 1993. The daily capacity of water supply has reached 180 million cubic metres, with an annual increase of about 8% and the population served reached 173 million people. In our cities the water supply coverage rate has reached to 92.5% and the wastewater treatment rate in cities has increased about 20%. However, we also know that we have our own problems such as the insufficient water supply and serious environmental pollution problems in some of our areas. So my government required each local authority to speed up the development of the city infrastructure and integrated environment management in order to meet the increasing demands of both the rapid economic growth and the people's

living conditions, and thus to promote the coordinated

development of the environment, and economic and social development.

It is very important for this conference to promote the broad international cooperation and relieve the problems of global water supply and environmental sanitation. We would like to make our endeavour to this aim hand in hand with the international society. It has been determined that the Chinese Government will continue to implement the reform policy and the door of China is opened now. We warmly welcome the financial consortium and enterprises from all countries of the world to come to China to build water plants and wastewater treatment facilities and to operate them. Also we welcome the industrialists and experts to undertake the bidding, construction and management of the water treatment projects through technical cooperation. In line with the recommendations reached at this conference, we will adjust and implement our policy and enlarge the international cooperation and exchanges further, in order to make our due contributions to water supply and sanitation and environmental protection for mankind.

Thank you for your attention.

**Statement given by Mr. Mohammed Hassad
Minister for Public Works,
Vocational Training and Staff Training
KINGDOM OF MOROCCO**

Mr. Chairman,
Honourable Delegates,

The major part of my country, Morocco, is arid or semi-arid.

Rural population accounts for over 57% of the total population; economical activity of the country depends therefore largely on agricultural production and water resources development.

That is why Morocco has placed high on the agenda, water resources mobilization and conservation on the personal impetus of His Majesty the King Hassan II. Major hydraulic infrastructures have been realized and help in achieving national objectives in the fields of irrigations and water supply.

Important results have been reached: the mobilization rate of water resources increased from 10% to 50% between 1960 and 1992 and the irrigated area reached 850,000 hectares in 1993 and is planned to attain the million hectares by 1997.

Concerning water supply, the house connection rates increased from 28% in 1960 to 80% in 1993; the urban population concerned jumping from 2 to 10 million during the same period.

On the institutional side, Morocco has developed the required structures both on national and regional levels. A High Council of Water, placed under the high authority of His Majesty the King Hassan II, has been established with large participation of elected bodies, politicians, experts and users, in order to set the broad lines of the national water policy.

Technical structures have also been created to achieve better knowledge of water resources as well as their preservation, allocation and mobilization.

Citizen participation is also sought at different levels by:

- payment by the consumers of a fair price for water

- the supervision of the drinking water distribution by the communal councils
- bringing awareness to the public about potable water production technology, water quality control, pollution control and water conservation.

The Government of the Kingdom of Morocco is orienting its efforts in the field of water policy towards achieving a balance between urban and rural water supplies.

Morocco set the challenging objective of providing generalized water supply to rural areas in the coming years. The High Council of Water recently approved a National Master Plan prepared in collaboration with UNDP and aiming at providing 80% of the rural population with safe drinking water in the mid-term future. Morocco is counting on the support of its partners. This vital programme for rural areas will be presented before the donors meeting to be organized by mid-November this year.

What has been said about urban water supply, applies to sanitation as well. Important efforts have been made to develop this sector. The master plans under completion for major cities, show, however, the importance of efforts still ahead and of the financing needs, especially in relation with wastewater treatment and reuse.

Along with those efforts, Morocco is promoting sustained actions to preserve water quality. Structures have been created throughout the country to monitor water quality through strict and permanent controls.

Before finishing, I would like to pinpoint here that His Royal Highness Crown Prince Sidi Mohammed had reiterated, in his speech before the world summit at Rio de Janeiro, the proposal made by His Majesty the King Hassan II concerning the creation of an international fund to finance world water pollution control programmes and increase the support to developing countries in developing their water resources.

I hope our conference will again focus on this question. Thank you for your attention.

**Discours de Monsieur Mohamed Hassad
Ministre des Travaux publics,
de la Formation professionnelle
et de la Formation des Cadres**

Monsieur le Président,
honorables délégués,

Mon pays le Maroc se caractérise dans une majeure partie de son territoire par un climat semi-aride à aride.

La population rurale consitutie 50% de l'ensemble de la population. L'activité économique du pays dépend donc largement de la production agricole et de la mise en valeur des ressources en eau.

C'est pour cela, et sous l'impulsion personnelle de Sa Majesté Le Roi Hassan II, le Maroc a fait de la mise en valeur et de la conservation de ses ressources en eau une priorité nationale.

D'importantes infrastructures hydrauliques ont ainsi vu le jour, contribuant à la réalisation de l'objectif national de l'irrigation et de l'approvisionnement en eau potable des populations.

Cette politique a permis d'atteindre d'importants résultats: la capacité de mobilisation des eaux est passée de 10% en 1996 à 50% actuellement et la superficie irriguée a atteint 850.000 ha et passera à 1 million d'ha dès 1997.

Au niveau de l'eau potable le taux de raccordement au réseau de distribution en milieu urbain est passé de 28% en 1960 à 80% en 1993. Le nombre d'habitants urbains raccordés est passé de 2 à 10 millions.

Sur le plan institutionnel, le Maroc s'est doté des structures néessaires, tant au niveau national que régional. Un Conseil Supérieur de l'Eau placé sous la Haute Autorité de Sa Majesté Le Roi Hassan II, a été créé avec une large participation des élus, des responsables politiques, des experts et des usagers, pour arrêter les principales orientations de la politique nationale de l'eau.

De même, des structures techniques ont été mises en place pour une meilleure connaissance des ressources en eau, leur préservation, leur allocation, et leur mobilistion.

La participation du citoyen est également sollicitée. à plusieurs niveaux par:

- le paiement du prix juste par les consommateurs,
- a supervision par les conseils communaux de la distribution de l'eau,
- la sensibilisation du citoyen, sur les

techniques utilisées dans la production de l'eau potable, le contrôle de sa qualité, la lutte contre la pollution et l'économie d'eau.

Les efforts du Gouvernement du Royaume du Maroc dans le domaine de l'eau sont orientés actuellement vers l'établissement d'un équilibre entre les milieux rural et urbain en matière d'alimentation en eau potable.

Le Maroc s'est lancé comme défi de généraliser l'approvisionnement en eau potable des populations rurales dans les prochaines années. Le Conseil Supérieur de l'Eau vient d'approuver un plan directeur national élaboré avec la collaboration du PNUD avec comme objectif de faire passer le taux de desserte en eau potable des populations rurales à 80% à moyen terme. Le Maroc compte sur l'appui de ses partenaires. Une Conférence sera organisée à la mi-Novembre de cette année pour présenter ce programme vital pour le milieu rural au Maroc.

Ce que je viens d'évoquer à propos de l'alimentation en eau potable en milieu urbain s'applique également à l'assainissement. Des efforts importants sont consentis pour développer ce secteur, mais les schémas directeurs en cours d'achèvement pour les principales villes du pays ont montré l'importance des efforts qui restent à consentir et des financements à mettre en place, particulièrement en matière d'épuration des eaux usées et de leur réutilisation.

Parallèlement à ces efforts, le Maroc mène des actions soutenues visant la préservation de la qualité de l'eau. Des structures ont été mises en place dans tout le territoire pour veiller à la qualité de l'eau par des contrôles stricts et permanents.

Avant de terminer cette intervention, je voudrais rappeler ici que dans son allocution devant le sommet de la Terre à Rio de Janeiro, son Altesse Royale le Prince Héritier Sidi Mohammed a rappelé la proposition faite par Sa Majesté Le Roi Hassan II concernant la création d'un Fond International pour financer des programmes de lutte contre la pollution des réserves mondiales en eau et pour accroître l'aide aux pays en développement dans la mise en valeur de leurs potentialités hydrauliques.

Je souhaite que notre conférence puisse de nouveau insister sur cette question, et vous remercie de votre attention.

SESSION 2: WATER AND PEOPLE - BUILDING COLLABORATION AND PARTNERSHIP

Statement by

**Mr Robert Atkins, MP, Minister for the Environment and Countryside,
United Kingdom of Great Britain and Northern Ireland**

At first sight, the central aim of this conference seems simple: to find ways of enabling Governments to ensure adequate supplies of wholesome water to meet their peoples' needs. But this simplicity is deceptive. We are faced with very complex problems, since water pervades every aspect of life. Every decision has inevitable ramifications.

I. Usually we try to simplify our problems. But sometimes it is more helpful to cast the net wider. That is inherent in achieving collaboration and partnership. Recent experience in water supply and sanitation has shown that we have a wider choice than we used to think. I want to stress three particular areas of this wider choice, where we should no longer regard water supply and sanitation as simply a task for governments, central or local.

II. First, governments can involve the private sector. In England we have worked out a satisfactory way to transfer the operation of our water supply and sanitation services to the private sector, while maintaining clear controls by government over both the prices demanded and the standards delivered. Our experience is that this provides a way of bringing in both new financial resources and, even more important, the management disciplines and effectiveness of the private sector. But to do this, it is essential that the Government does three things:

- A. it must specify clearly what standards are to be delivered;
- B. it must give the water supply and sanitation services a robust financial framework with explicit support, where necessary, to meet social purposes and with clear incentives for economy, effectiveness and efficiency;
- C. it must establish effective, impartial organisations to monitor and enforce the required service standards.

III. Secondly, governments do not need to take decisions unaided. Informed decision-making in a complex area like water management means ensuring the involvement of everyone with a stake in the problem. This does not mean that every decision has to be made by universal consensus - nice though that

might be, it is rarely practical. What it does mean is that people know what decisions are going to be made, that they have access to the information on which to base an informed opinion, and that they have the opportunity to express that opinion and have it taken into account before its decision is made.

IV. Thirdly, non-governmental organisations (NGOs) have an important role to play. These roles are both national, in articulating people's views on the decisions to be made, and international, in transferring ideas, skills and good practice. The United Kingdom charity WaterAid has been particularly successful both in developing solutions based on low-cost technology and in showing how local NGOs and their communities can be brought in. I want to draw particular attention to a way in which water utilities in developed countries can assist this work. Whenever anyone in England gets their bill for water or sewerage services, the water or sewerage company offers them a simple way in which they can make a financial contribution to the work of Water Aid at the same time as they pay their own bill. This provides a substantial flow of resources for Water Aid's work.

V. This session's theme is collaboration and partnership. By using the private sector, by involving all stakeholders in decision-making and by giving NGOs an appropriate role, we can bring in more resources, more ideas and more commitment - all of which will be needed to solve the massive problems that the world faces.

FUTURE CHALLENGES
presented by Mr. Elias Diaz Peña, PARAGUAY.
representing the NGO community

Thank you Mr. Chairman.

The representatives of Non Governmental Organisations from the North, East and from the South in this conference recognize the complex set of challenges that we must face in the future to solve the global water resource crisis. We are prepared to collectively confront these challenges. We will use our capacity, creativity, knowledge and our close relations with local communities and their organisations to find solutions.

The conflicts that stem from the water issue will almost surely generate geopolitical difficulties. By the horizon of the year 2000 we know that one of the paramount reasons for conflicts will be water. We have to be aware of the complexity and intensity of the confrontations that this will give rise to. The Southern countries that suffer the burden of debt, poverty and marginalized population can not bear one more load.

But water can also lead to peace and cooperation. The choice is in our hands. We can build a world where water is secured for all, or a world where water is a cause for war.

As an illustration, think of internationally shared water resources. Examples for potential conflicts include amongst others the Nile River Basin, the Danube River Basin, the Rio de la Plata in Southern South America, the groundwater issue in the Middle East. This conference has shown that there is keen awareness about transboundary issues. We urge for concrete actions to facilitate resolutions. We don't have to remind you that peace is an integral part of sustainable development. The Non Governmental Organisations have chosen this way of peace. The management of shared water resources will require creative planning based on active and positive cooperation among the involved states and its citizens. Bilateral and multilateral agreements and commissions must be promptly negotiated and implemented. The participation of those directly involved must be secured in the preparatory processes. We urge the conference to endorse and implement points, such as Chapter 1-3.(e) and Chapter 3 of the proposed Action Programme.

We have proposed language that may facilitate the removal of brackets in Chapter 1-3.(e), and that is:

"Promote public participation inter alia in the preparatory processes of multilateral and bilateral treaties and agreements on transboundary water management via national mechanisms and appropriate international fora."

We see water security as one of the fundamental human rights. Water should never become cause for discord.

As the children have just so eloquently told us this morning:

WATER MUST UNITE PEOPLE.

**Statement of the United Nations Food and Agricultural Organization
on behalf of the Director-General**

Excellencies, Distinguished delegates, Ladies and Gentlemen,

Perhaps some of you may wonder whether drinking water supply and sanitation is a concern of the Food and Agricultural Organization.

I would say yes, it is, and for several reasons:

- First, FAO is promoting water for sustainable food production and rural development, and that obviously includes the drinking water and sanitation aspects,

- The second reason is that **Agriculture is one of the competitors** for the use of water resources: by no means can food production be increased without securing adequate water supply to the plants through one of the irrigation techniques. However, in a number of cases, particularly around large cities, it should be recognized that conflicting situations have developed and require a precise policy to define the rules to be applied for the allocation of water to the different sectors. This is now one of the tasks of FAO to assist those of the member nations which request it, to elaborate their water policy and to formulate the legislative framework required for its enforcement. A number of countries have already used the services of FAO to develop their water policy, and guidelines will be issued within a few weeks and will be widely distributed through our representatives in the various countries.

- However, just developing policies would certainly not be sufficient to address the problems of limited water resources and increasing demand. It is clear that drinking water will always have the priority in the allocation of limited resources and therefore the challenge of irrigated agriculture will be now to **produce more with less water and less land**. Many of FAO's present activities are aiming at the improvement of water use efficiency in irrigated agriculture through the promotion of water-saving technologies and of new management approaches at farm level as well as at irrigation scheme level.

- Another reason for the involvement of FAO in the drinking water supply issues is the **pollution**. Agriculture pollutes water resources because of the improper use of chemicals. We all know that and FAO has prepared guidelines and set up demonstration blocks in many countries for disseminating principles and

methods of integrated plant nutrition systems. The proposed water basin approach to define the water resources management strategies is also a way to better ensure the cross sectoral understanding required to limit the pollution effects.

- Eventually, I should also mention an important complementarity between domestic water supply and irrigation: that is the use of **urban effluent, after limited treatment, for irrigation**.

- In **conclusion** there are many similarities between the new approaches which have been discussed here for improving the performance of drinking water supply and environmental sanitation and those applied in the field of irrigated agriculture.

**Statement of Mr. Stanislaw Zelichowski,
Minister of the Environmental Protection,
Natural Resources and Forestry
of the Republic of Poland.**

Mister Chairman,
The Distinguished Ministers and Delegates,
Ladies and Gentlemen,

On behalf of the Polish delegation I would like to extend my warmest greetings to all the ministers and delegates invited to this Conference. I would like also to express my gratitude to His Excellency, Mr. Hans Alders, the Minister of Housing, Spatial Planning and the Environment of the Kingdom of the Netherlands, whose kind invitation and excellent organization have allowed us to participate in this important Conference.

Contemporary civilization faces us with many challenges. The only way to cope with them is through joint national and international efforts. Among such challenges is the provision of adequate water supply and environmentally friendly sanitation.

I think that the above problem concerns - of course to various degrees - all the members of this Conference. We all came here - to this beautiful and well-organized country: The Netherlands - with so many hopes, but also with uncertainty over whether we'll be able to achieve the breakthrough.

And here we ask the question, which of the ideas included in the Political Statement and the Action Programme should lead us to success in the future?

In my opinion the following ideas included in those documents will have a great importance for our future.

First of all - it is the change from the old way of water supply and sanitation systems in "splendid isolation", as a separate sector, towards the integration of these systems into the National Sustainable Development Programme. The water supply and environmental sanitation take their place among the national priorities. I would like to inform you that in the near future the Polish Government will submit this solution to the Parliament as the new National Water Law Proposal.

Secondly - "decentralization" i.e. governmental authorities handing down their responsibilities concerning water supply and sanitation to local authorities and communities. Such decisions are being taken in Poland now. The effect of this is the construction

of over 1200 sewage treatment plants of various sizes. The majority of those plants are being built on the initiative of and with the financial participation of local communities. This is undoubtedly a sign of their environmental consciousness.

Dear delegates,

I am confident that our contemporary civilization is fully capable of tackling successfully all the technical aspects of supplying drinking water and providing environmental sanitation. It is therefore obvious that the financial instruments are the main obstacle. That is why we should seek out possibilities for financing them from local, national and international sources, and also create mechanisms providing opportunities for national and international private investors, to finance these tasks. The action described above could be treated as kind of compensation for the earlier careless misuse of the environment.

The Polish delegation supports the findings and recommendations of this Conference. A brief description of our environmental problems and remedies concerning the water sector (Chapter 18, para D of Agenda 21) have been submitted to the Secretariat of this Conference.

Thank you for your attention.

**Statement given by Mr. B. Abdoulaye
Minister for the Environment and Protection of Nature
from Senegal**

Mr. Chairman,

The degradation of our environment is becoming a transboundary matter troubling all those already concerned with the fact that our ecological balance is being destroyed. This Ministerial Conference, along with the preparatory session, has shown us what the key elements are in our worldwide effort to take up the challenge of the environment and substantially improve the living standards of humanity. In establishing the milestones for sustainable development, the international community, in its concern for drinking water and environmental sanitation, is quite clear of the dialectic of interdependence between biological, physical, chemical, social, and economic factors influencing the health and prosperity of humanity. It may seem a truism but it is no totality to stress the vital role of water, the source of all kinds of life. This strategic resource really is the basis of all vegetable and animal life.

We have only to look back at history and the great sagas of human development to see that ground and surface sources of water have been the cradle of civilization. If you look at the great pre-colonial countries of Africa it has been the absence or presence of water which has been the main factor creating this or that trait in any culture or nation. And now, in a world of dangerous extremes that constantly threaten our natural balance, we understand that more than ever, that water is the most precious and indispensable thing to our survival. This is particularly true in the harrowing awareness that freshwater is getting rarer and rarer, and that climatic change and global warming along with misuse and wastage are aggravating the increasing scarcity of freshwater throughout the world. In Africa all these features have been made even more dramatic by the fact that the population explosion has not been supported by an appropriate development effort, and by the disturbing consequences of natural catastrophes and the ravages of illiteracy and poverty.

Mr. Chairman, ladies and gentlemen, it is also particularly true of the second great challenge facing us, which is environmental sanitation, a factor which is at the forefront of our thinking, not only for the nations but for the governments and the international organizations as well. International cooperation is the key to tackling this chronic lack of water, especially in the developing countries.

We should all be aware of our commitment to carry out surveys of the quality and quantity of water, define the sources of pollution, and to provide fresh-water and environmental sanitation. Thanks to the creative approach of our researchers and engineers, and with the help of the international community, this will be possible to achieve.

The Government of Senegal, through the Ministry of the Environment, has provided drinking water and environmental sanitation, and is making that their first priority in our development plan. It is a multidisciplinary action, with the whole population involved, along with the NGOs within and outside the country. This strategy, of course, means that we are going to have to have pilot projects, with rural and especially peri-urban applications, which will create a kind of laboratory in which we can monitor how well these are being implemented. It is an ambitious plan of action, but as we face the 21st century the international community can and should give a new impetus to these changes and plans. If we intend to create a new world where millions of men, women and children will have drinking water and adequate sanitation in Africa, Latin America and the rest of the South, then it is essential that here and now we make sure that our commitments become reality.

It is so easy to speak fine words and then put away the paper and forget everything that has been said. I therefore hope that our work, which the whole planet is watching with interest and fascination, will bring to life the conclusions of the Rio Conference, and will lead to specific action which will be to the benefit of all of us and the whole of the planet as well.

Thank you.

**Speech given Mr. Mohammed Salah Eldin Hassaballa
Minister of Housing, Public Utilities
and New Communities
Egypt**

Thank you Mr. Chairman.

I had the intention of starting my speech by thanking Minister Alders and the Dutch Government for the hospitality and for the warm welcome, but this was not allowed, so I will go straight to my speech. I would like to thank you for this excellent initiative of uniting so many ministers from all over the world who are concerned with the problems of drinking water and environmental sanitation in their countries. I am sure that the level of excellence at this conference will enable us to present recommendations and take decisions which will allow us to tackle many of the problems that we face in our own countries as well as all the countries in the third world, regarding the lack of drinking water, and that we will also be able to take measures that will allow us to combat the contamination and pollution of water resources.

I think that the last conference I attended here in Holland was on 3-4 February. I also studied the Political Statement and the Action Programme that are going to be adopted at the end of this conference here in Noordwijk. I have seen that the ideas and recommendations that are presented in that document are excellent. All we need to do now is to apply them in practice. This, though, will only be possible after other meetings take place at local, regional and international level, with help from the institutions and international organizations that are concerned, and through adequate aid - financial, technical and otherwise, to those countries that suffer difficulties because of lack of adequate drinking water and pollution in general. I think we must also help those countries that have already created the systems and ambitious projects to improve drinking water and environmental sanitation - help them to maintain whatever they have already achieved, and help them to carry out future projects as well.

I would like to say that in Egypt we've adopted the following slogan: "Give a glass of drinking water to each citizen". In this regard I wish to thank all the different countries, institutions and organizations that have helped us in the drinking water and environmental sanitation sector in general, and that have given help to other countries that need and require this help. I believe that this help has allowed us to improve the situation in those countries.

Finally, I would like to wish you and all participants in this conference great success once we define the necessary recommendations in order to carry out our objective, which is to guarantee drinking water and environmental sanitation and a clean environment all over the world.

Thank you very much.

**Statement of Mr. Nangolo Mbumba,
Minister of Agriculture, Water and Rural Development
of Namibia**

To achieve sustainable development, the principle of collaboration between all partners in the water supply and sanitation sector is of paramount importance. This principle, which has been recognized internationally, is now also being successfully implemented in Namibia both locally and nationally.

At the local level, the communities in the densely populated northern regions of Namibia have been mobilized and are actively involved in the development of rural water supply schemes. The stakeholders and beneficiaries are today digging trenches and providing their labour for the construction of pipelines to establish water points at isolated villages. These people have actually been involved in the planning and construction of the water schemes and realized the importance of setting up water committees to facilitate the operation and maintenance of their water supply system. This brought about behavioural change which promotes hygienic practices, the willingness to pay for the water supplied and to protect the water supply infrastructure that has been established. More than 560 km of pipelines, and 330 water points serving at least 230,000 people have been created in this way at an approximate capital cost of US\$ 19 million since the independence of Namibia in 1990.

At national level a programme has been launched to set up Central, Regional and Local Water Committees to promote public awareness on water related matters, to involve local committees to play a participatory role in the water supply and sanitation sector and to encourage the conservation of our precious water resources which is certainly a crucial aspect in the arid environment of Namibia.

The Namibian Government approved a Water Supply and Sanitation Sector Policy at the end of 1993. It can therefore be stated that the priorities and responsibilities for further development in the sector, be it water resource development, or the establishment of water schemes, or the provision of safe sanitary facilities or the protection of the water environment or the education and training of people to enable them to participate fully in the total strategy, have been established.

The lesson which has been learned from this exercise is that all legislations or the possible availability of funds or the willingness of executing agencies to develop the sector, can not be utilized to the best advantage if a vacuum exists regarding an effective

water supply and sanitation policy for a country.

The water supply and sanitation sector policy also serves as a cornerstone for mobilizing international financial resources to enable the participating communities, which are scattered over a large area in the sparsely populated Namibia, to provide water and sanitation services to themselves.

Since independence, the country has succeeded in obtaining funds internationally, for the investigation into the occurrence of water resources and the establishment of economically viable water supply infrastructure. It has also been realized that the sustainability of such support can only be achieved and maintained by appropriating the funds sensibly according to the envisaged expenditure programme and within the budgetary constraints. This policy and the results achieved in the water and sanitation sector, needs further support from the international funding community to ensure that the Namibian Government can facilitate the creation, operation and maintenance of water supply infrastructure with the help of all the beneficiaries who have already shown their desire to make their own contribution.

Within this framework an enabling environment for sound management at international level has been created on a national level and opens the door for External Support Agencies to give priority to cost-effective projects aimed at improving drinking water supply and environmental sanitation in Namibia.

**Speech given by Mr. Juma H. Omar
Minister for Tourism, Natural Resources and Environment
from Tanzania**

I thank you Mr. Chairman, for giving me this opportunity.

Mr. Chairman, provision of safe drinking water has been a high priority for the Tanzanian Government. The commitment of the Government to the water and sanitation sector has been articulated through its policy development and implementation programmes. In pursuance of the objectives of a water programme for all, and in fulfillment of its commitments to the Water and Sanitation Decade, and the development objectives of the World Summit for Children, the Government of Tanzania has executed many projects and on average, allocated 6% of its annual development budget to the water sector.

Mr. Chairman, our experience with the programmes for provision of safe water supply and sanitation has taught us some important lessons which I would like to share with you. Financial constraints have set the overall context. Operational costs have been higher than generated revenue since water tariffs were not designed to meet running costs. This led to a general inadequacy of operation and maintenance funds. Up to 35% of the rural water projects are not delivering intended services due to lack of maintenance and rehabilitation. This reality has pointed at the need for community involvement and accountability for water schemes by the beneficiaries, and for cost sharing between government and consumers in order to reflect real needs and achieve sustainability. Policy emphasis is now on community-based management of water schemes. We have also seen the need to consider the role of the private sector in water supply and sanitation programmes and the need to employ least-cost technologies. Simple technologies, for which the potential is now much easier to determine in the light of the detailed water assessments that have been and are being carried out throughout the country, provide the opportunity for wide coverage.

Mr Chairman, in addition to providing the less costly alternative, this approach is amenable to a much greater degree of community participation, particularly that of women, who are the main bearers of the burden of fetching water and managing its use at the household level, and are therefore most affected by the problems of water and sanitation services in rural areas. The policy emphasizes their central role in identifying problems and solutions to enhance proper

water usage and maintenance of facilities.

The need to address linkages between water, sanitation and health education has also been identified as an area of relevance for establishing complementarity of programmes and to benefit from synergy of actions within these sectors.

Mr. Chairman, appropriate policy frameworks and workable operational strategies are urgently needed to address the many concerns relative to safe drinking water supply and sanitation. Chapter 18 of Agenda 21 provides an umbrella policy framework under its programme on this theme. All of you have taken measures in your countries, similar, and perhaps more comprehensive than those I have outlined for Tanzania. However, since the human being is the centre of all development, the human condition is the only factor realistic for evaluating success. That condition suggests that success is yet far beyond reach for the majority of mankind.

Mr. Chairman, we need to act together and support each other on the many potential lines of action. Sound management of water resources is vital for addressing the question of safe drinking water and sanitation. This entails many concerns. It entails the need for water demand management through techniques such as water-saving devices and educational programmes. It entails optimum utilization and maintenance of existing facilities so that water losses are minimized and available supply capacities are fully used. It entails examination of the scope for reusing waste water for a variety of purposes to the potential benefit of sustainable development practices. It entails regional and sub-regional cooperation in environmental management of shared freshwater resources. Each of these considerations implies numerous areas of cooperation. We must work together.

Mr. Chairman, we might fail together, but it is only together, that we can win. Once again, I thank you very much for your attention.

**Statement given by Mr. C.M.K. Sowu, MP
Minister of Housing and Works
from Ghana**

Mr. Chairman,

My delegation is happy to note that the issue of building collaboration and partnership among stakeholders in the provision of water (and environmental sanitation) is among the themes given prominence by this conference in the Action Programme.

Ten years ago the Government of Ghana took a bold decision to devolve administrative authority to the 110 districts in our country, placing primary responsibility on District Assemblies for the social, political and economic development of their areas of jurisdiction. The districts are empowered to take decisions, plan and implement programmes for sustainable development.

In such a decentralised environment, the central government has changed its role from providing services to that of a facilitator in the provision of services.

This new role is evident in a National Community Water and Sanitation Programme launched by the Government, which has the following objectives:

- providing water supply services to communities which can contribute towards the capital cost as well as paying the normal operations, maintenance, and repair cost, and collect revenue;
- ensuring sustainability of the facilities through private sector provision of the goods and services, and public sector promotion and support;
- maximizing health benefits by integrating water, sanitation and hygiene education interventions.

The programme uses the demand-driven approach, and certain criteria have to be met by prospective participants. For example

- A community must first decide that it requires the service and would like to participate in the NCW-SP.
- The community should be in a position to pay its stipulated share of the cost depending on the type of water system selected by the community.
- There should be organized meetings involving the consumers.
- There should be at least one partner organisation and one or two manufacturers' representatives to provide spare parts and after sales service.
- There should be Regional and District Water & Sanitation Teams in place.
- There should be a joint bank account for the community and the District Assembly for the project.

The first phase of the programme involves a pilot project to provide water and sanitation facilities to selected small towns and communities in 6 of the 10 regions in Ghana.

The Government of Ghana recently obtained an IDA credit facility of US \$ 21.4 million to fund the first phase, and sees the programme as a vehicle which, if carefully steered, will bring relief to the inadequately served and unserved in the area of water supply.

Thank you Mr. Chairman

Statement by Dr. Susan Pineda
Assistant Secretary of the Department of Health
from the Philippines

The Philippines re-iterates its support and commitment to Agenda 21 in general, and to the consensus that seems to be emerging in the Conference. We draw specific attention to the five key messages mentioned in the briefing documents, that spell out quite clearly the need for simple goals that ordinary people all over the world can understand, and translating these simple goals into simple concrete actions. Critical to these messages is the one that has been repeated in this hall, that "people solve problems, and not governments".

In the Philippines today, 215 children will die within the next twenty-four hours of diarrheal diseases. While health interventions are being put into place to save these lives through oral rehydration, the more basic intervention is to ensure the protection of drinking water, and facilitate development of sanitation systems.

In our country today, there is serious talk about changing the conceptual framework for safe water interventions, and shifting the locus of action from the infrastructure sector, to the health sector. This is perhaps why the health sector is representing our entire government on this relevant topic.

The rallying cry of the Health Department is "health in the hands of the people!", translated to the water issue this is now called "safe water in the hands of the people!"

On April 25th of this year, during the week of EARTH DAY celebrations, we will launch a national programme, called WATER FOR LIFE, as an ambitious, urgent and yet hopefully realizable HEALTH PROGRAMME, which aims to bring level 1 water supply to 100% of the unserved population by the year 2000.

WATER FOR LIFE is basically a social mobilization strategy, which borrows heavily from the initial successes of our recent NATIONAL IMMUNIZATION DAY, which is part of the global strategy to eradicate poliomyelitis in the region and control other childhood killer diseases such as measles, tetanus, diphtheria, pertussis and tuberculosis with the assistance of WHO and UNICEF.

NATIONAL IMMUNIZATION DAY over the past two years has shown that a national government can actually facilitate a process of participation of all sectors, and provide the conditions and atmosphere for decentralized implementation of national programmes through advocacy, networking and social mobilization. For NATIONAL IMMUNIZATION DAY, mayors, media, health personnel of local governments, celebrities, basketball stars, actors, singers and actresses have been key advocates for immunization.

WATER FOR LIFE will use the same strategy, but will use the national swimming team as advocates because these people are identified as 'water lovers'. WATER FOR LIFE will also build capabilities within the health sector, to respond to the need to develop community-based water programmes that should be part of health programmes. Community organizing, community financing schemes and appropriate technologies will be integral to these systems. Currently, a core group of idealistic doctors called DOCTORS TO THE BARRIOS, or DOCTORS FOR THE VILLAGES are initiating this process. They are supported by both the government and the private sector as they set up community-managed health programmes and are working in municipalities that have not seen, heard or touched a doctor for the past 20 years. Nurses, social workers, community development workers, mountaineers, engineering students, volunteer groups and other people who work with people will help replicate these small water projects all over the country this year and till the year 2000. These water projects are low-cost and utilize simple technology such as spring boxes, and rainwater catchment devices among others. The net cost per project is from 1000-2000 US dollars. The bulk of the work is in working with people, who will sustain these small water projects.

While people and not governments solve problems, governments are made of people. This conference has opened our eyes to the need to a similar high level national conference involving the provincial governors of the Philippines and the major NGO networks that are concerned with development, so that resources may be maximized. We look forward to convening this as soon as possible as the issues presented require solutions that cut across geo-political, cultural and geographic boundaries, not to mention political parties, and that we should address these issues within

the contexts of conserving particular ecological systems within the country.

We should however not like to end our statement without mentioning some other "sensitive issues" that must likewise be addressed.

By and large, the issues of development and North-South relations must be addressed. The continued demand for Philippine and South-East Asian timber in global markets, which is a reason for watershed destruction and depletion of groundwater supplies, must be mentioned. The continued dumping of toxic waste in the guise of exportation of industrial processes that are unacceptable in Northern countries, to Southern countries with poorer means of regulating waste disposal causing pollution of major rivers and water ways, must be mentioned. The marketing of chemical pesticides in Southern countries by Northern corporations, which is causing pollution of surface waters must also be mentioned.

While there is much that national governments can do, the Southern countries would hope to see real commitments from the Northern countries in terms of economic and trade policies that seriously affect what might sound like far off issues like drinking water. These issues are inextricably interrelated.

Thank you.

**Statement given by Dr Wilfried Kreisel
Executive Director World Health Organization**

Mister Chairman, honourable ministers, ladies and gentlemen - I am very pleased to address this important gathering on behalf of the World Health Organization and its Director General, Dr Hiroshi Nakajima. WHO salutes the Government of the Netherlands for taking the initiative to host this conference. We believe that the time is right for reassessing the drinking water supply and sanitation needs of humanity and that this conference can be the start of a new approach, for countries and organizations throughout the world, to dealing with this most fundamental human need.

Of all the regions of the world, Sub-Saharan Africa has the most deplorable water supply and sanitation conditions. The continued existence of hundreds of millions of people living without two of the most basic, and absolutely essential, needs for a supportive environment and healthy lives constitute an affront to human sensibilities and a reminder of the heavy responsibilities that weigh upon us.

It is clear that there is need for change in the development process if hope is to be restored, not only in African cities and villages, but in communities around the world.

Mr Chairman, I call upon the national governments and other organizations participating in this conference to join WHO in a new partnership for water supply and sanitation in Sub-Saharan Africa. Last September, in Gaborone, Botswana, ministers of health from the 46 sub-Saharan African countries represented on the WHO Regional Committee for Africa, called upon WHO to initiate an innovative programme for water supply and sanitation in the region. Given the name AFRICA 2000 by the Regional Committee, this programme is intended to:

- raise awareness throughout the world of the magnitude of the water supply and sanitation needs in Africa;
- establish consensus among African governments regarding joint actions to meet their water and sanitation needs;
- create a new partnership between African governments and external development organizations;
- increase the flow of both internal and external resources for water supply and sanitation development in the region.

The overall goal of AFRICA 2000 is to assure access to safe water supply and adequate sanitation to

all the people of Africa. In the long run this will require new investment, new technologies, and new forms of cooperation. Let us start now with the essential aspect of cooperation and build on what we have and what we are currently doing. Let us begin with a commitment to find new ways of working together - initially for the people of Sub-Saharan Africa, but eventually for all regions of the world.

WHO requests this conference to endorse the spirit and goal of AFRICA 2000. It further invites all interested governments and organizations to join us in a common effort to find new approaches to the seemingly intractable problems of water supply and sanitation in Africa. We believe this can be done through partnership, consultation and attention to the needs and resources of the people themselves.

Let us start by reviewing our policies, programmes and available resources for countries in the region. From there, let us consider how best to jointly support national programmes for expanded water and sanitation development. The days of unilateral action in development are over. We are now in an era when cooperation between governments, organizations and communities is the only way to achieve significant progress in water supply and sanitation.

AFRICA 2000 should not be viewed as a WHO programme, but rather as a broad-based, cooperative regional effort to address the pressing water and sanitation problems of Sub-Saharan Africa and, in the process, to develop patterns of partnership that can be transferred to other regions of the world.

Let us work together in this noble cause.

Mr. Chairman, thank you for this opportunity to make these comments.

**Statement given by Mr. Guy Le Moigne
World Bank**

Thank you Mr. Chairman,

Since my Vice President had the privilege of addressing the assembly this morning, I shall be very brief, and mention three areas of action in which we are involved, which are very much related to the programme of this conference. The first one is translating principle into practice, the second is the need to learn and to adapt, and the third is the essentiality of partnership. On the first one, I would mention that as indicated by Mr. Serageldin this morning, our Board of Directors has very recently approved a water resources management policy paper that is very much inspired by the Dublin and Rio Conferences. In preparing this policy paper, we used a participatory process with inputs from all the other external support agencies, borrowers, the professional associations and the NGOs. More generally, we follow these lessons in preparing the World Development Reports which all build on the principle of the participatory process - the one on poverty in 1991, on environment in 1992, on health in 1993, and this year on infrastructures. Our investment in the water sector is well above US\$ 3 billion per year, but in the water supply and sanitation sector alone, it is about US\$ 1.2 billion a year. In investing, we try to follow the new and innovative, and financially and environmentally sustainable projects for the poor described by Mr. Serageldin.

In the learning process we make a major effort to learn from both the good and the bad experiences, so that resources can be used more effectively. We are committed to report to our Board of Directors next year on whatever progress we have made in this learning process.

In partnership with our colleagues, we are preparing, with the UNDP and professional associations, a guide to translate policy into the formulation of strategies, and together, under the umbrella of the Water Supply and Sanitation Collaborative Council and the UNDP, we are preparing institutional case studies, with the first case being about the French experience. Together with our colleagues from WMO and UNESCO, we are doing our very best to improve the hydrological database and to launch a hydrological cycle observation system starting with sub-Saharan Africa, but extending to the Central Asian Republics and Latin America.

Thank you very much Mr. Chairman.

**STATEMENT by Mr. H. Scheltema, Chairman of the Board
of IRC - INTERNATIONAL WATER AND SANITATION CENTRE**

Mr. Chairman,

The essence of this Conference, Mr. Chairman, as I see it, is that it constitutes a first step in a long process of change. Indeed change is needed in order to reach those still unserved with water supply and sanitation services. If the recent Water Decade, in spite of its successful endeavour, has been able to do no more than keeping pace with population increase, clearly, not only a more forceful, but also a different approach is now needed.

It is fortunate that the extensive experience developed during the Water decade has led to a consensus on the nature of that change. UNCED, and its guiding Agenda 21, created a new awareness that water supply and sanitation actions need to be integrated with water resources management and the concepts of sustainable development. But it has also given a fresh opportunity to build on the consensus achieved during the Decade and to implement the lessons learned.

It has been learned that change in behavioural patterns is required in the sense that programmes must be based on what men and women in rural and peri-urban communities know, want and are able to manage, maintain and pay for. Change is required in the approach government and the political levels take, regarding their roles and those of rural and urban communities and those of other stakeholders. Change is required in building the capacity of these stakeholders to fulfil their new role.

The great challenge is now to keep up the omentum that emerged during the Decade and allow the lessons learned to bear fruit and not go to waste. Therefore the development of new knowledge needs to be accelerated in a number of key areas. This Conference is in itself a contribution.

New endeavours on community management are important to carry the change I just talked about, as is the emphasis on gender issues. Furthermore, I would particularly like to call attention to the dramatic development in urban settings which require innovative measures urgently.

A special issue I would like to emphasize is that of sanitation. Its development lags behind tremendously and it therefore, in my view, needs immediate attention.

A final point I would like to make is the need to further develop national resource centres to undertake tasks on information and monitoring, training, applied research, and public information.

Mr. Chairman, this is the first time in history that a special Conference at political level is taking place on the issue of water and sanitation. With that it constitutes a major thrust towards advocacy at political level. I trust that this initiative will be pursued vigorously in the years ahead.

In its 25th Anniversary Year and beyond, in each of the areas of initiative essential for the sector progress we all seek, IRC is ready to act as an information-oriented "catalyst for change". In this context, it wholeheartedly supports the objectives of the March 1994 Ministerial Conference.

In partnership with country-level organisations, in close collaboration with the agencies taking part in its Board, and in harmony with the aims of the Water Supply and Sanitation Collaborative Council, it pledges itself to active support of follow-up action to the Ministerial Conference, at both country and international levels.

ACTIONS FOR CHANGE

In order to reach those still unserved with water supply and sanitation services, change is needed. If the recent Water Decade, in spite of its successful endeavour, has been able to do no more than keeping pace with population increase, clearly, not only a more forceful, but also a different approach is now needed.

It is fortunate that the extensive experience developed during the Water Decade has led to a consensus on the nature of that change. UNCED, and its guiding Agenda 21, has on that basis not only created a new awareness that water supply and sanitation actions need to be integrated with water resources management and the concepts of sustainable development. It has also given a fresh opportunity to build on the consensus achieved during the Decade and to implement the lessons learned.

Behavioural change

It has been learned that change in behavioural patterns is required in the sense that programmes must be based on what men and women in rural and peri-urban communities know, want and are able to manage, maintain and pay for. Change is required in the approach government and the political levels take, regarding their roles and those of men and women in rural and urban communities and those of other stakeholders. Change is required in building the capacity of these stakeholders to fulfil their new role.

Change is also required in the sense that operation and maintenance are paid for and that this is done through innovative, flexible and appropriate ways of financing and practical financial management, not universal systems of government subsidies, and that these new ways of financing do not exclude the poor.

The great challenge is now to keep up the momentum that emerged during the Decade and allow the lessons learned to bear fruit and not go to waste. More than a billion people still need safe water and close to two billion need adequate sanitation, not counting ongoing population growth. This implies that investments in the water and sanitation sector are kept up at least to the present level and that what we learned on improving the efficiency of the approaches is actually applied. At the same time the development of new knowledge needs to be accelerated in a number of key areas:

Community Management

Acknowledging the rights of user communities to water and environmental sanitation services also means they have obligations. But to exercise rights and fulfil obligations, communities and individuals need to have the proper tools, skills and methodologies, such that they can take up their new roles. Governments also need to prepare for a new function as enablers and together with NGOs and the private sector, take up a role as partners to community based initiatives. This whole area of community management will continue to be a prime focus of IRC, through support to multi-country demonstration projects, training and information synthesis.

Sanitation

Both water supply and sanitation progress need to be stepped up. But particularly on sanitation development, little progress is made, and political will and enhancement of demand need to become the major components to build on. The development of knowledge and experience on sanitation needs strong emphasis to lay a sound foundation for future actions,

since we know much less about how to implement effective and sustainable programmes in sanitation than in water supply. Consequently, IRC will continue its endeavours to contribute to an improvement in sanitation services.

Urban areas

Effective and affordable services in poor urban areas is one of the major challenges of the future. IRC has documented some innovative and successful programmes in cooperation with its partners, in which low-income urban neighbourhoods have improved their sanitation or local water supply systems. IRC will go on with the enhancement of a wider knowledge of such non-conventional yet effective solutions with peri-urban communities. It will also work on a more general catalogue of innovative urban service systems, in collaboration with country-level agencies who support and implement such systems.

Gender issues

Approaches taking gender differences into account will be part and parcel of the above activities. Still too many programmes are gender-neutral. Men and women however, have different interests, knowledge, and tasks in land and water use and water supply, sanitation, and hygiene. If projects in these areas are to succeed and benefit both user groups, we need to recognise and account for these differences. IRC will continue to contribute to the development of knowledge, understanding and application of a gender approach as an integral part of its works.

Water Resources Management

UNCED has meant that water supply and environmental sanitation will be integrated into the broader context of water resources management. The pressures on water resources quantity, quality, availability and replenishment, are exacerbated by population growth, the demands of multiple users, including agriculture and industry, the growth of cities and the impact of pollution. All these factors, and particularly the closest possible involvement of stakeholders in reaching solutions, need to be taken into account when planning, implementing and managing water and environmental sanitation services. IRC is giving special attention to these issues, through focusing on the cataloguing of promising approaches and the development of participatory tools. This work concentrates not only on the needs of governments and country level agencies, but also on the opportunities for user communities themselves to play an important role in this vital area.

Resource Centres

Attention should now focus on the need to broaden the base of the lessons learned in the ongoing and new programmes related to these and other issues. They also need to be included in the sector's educational system and in refresher courses. Equally important is that support services are available at country level, to facilitate the policy and implementation levels in carrying out their tasks. IRC therefore supports the development of national resource centres where information on multi-disciplinary aspects of water supply and sanitation and water resources management is available and which have a core of skilled national staff for support activities on information and monitoring, training, applied research, advisory services and public information.

**Speech given by Ms. Margaret Catley-Carlson
Chairperson
Water Supply and Sanitation Collaborative Council**

Thank you very much, Mr. Chairman.

May I echo the pleasure of the last speaker in speaking under your expert guidance. The WSSCC is a very long name, indeed. It is the Water Supply and Sanitation Collaborative Council, and indeed it is a real pleasure to speak to this group on behalf of the Council, which groups practitioners in the water and sanitation sector. This group has been talked about a good deal in the literature preparing for this meeting, so it might be useful for you to have a little bit of an idea of exactly what it does and who the practitioners are. Practitioners is a very flexible and practical term. At the country level it involves utility managers, community groups, governments, people who operate water and sanitation facilities. In the external support agencies, bilateral and multilateral donors it involves project managers, programme managers, policy thinkers who work in the sanitation and water area. It involves NGOs - international, national and coordinating types, and we are beginning, with a good deal of success, to involve the private sector, both through associations and through companies. We are practitioners from all over the world, and we hope to include all of the world, developed and developing, because the term 'practitioner' moves across distinctions of developed or developing worlds. At our last meeting we had representatives of about 49 different countries of the developing world. That meeting took place in Morocco, and followed by two years, one in Oslo.

The attitude of our practitioners group, Mr. Chair, is that the effective operation of services has to be encouraged to as wide a group as possible, especially women, and especially poor people. Our conviction is that the best way is to involve those same people in the decisions about the design of and the maintenance and operation of the systems that will concern them. As Ismail Serageldin said this morning, "The tough part is putting principles into practice," and we try and do exactly that. In aspects related to drinking water and sanitation we try to take a vast spectrum of aspects, everything from operation and maintenance to information systems, to how countries have succeeded or failed in collaborating and arranging consultations at the country level. Our products are very practical. They are not resolutions, and they are not policy statements.

In fact, they are manuals, case studies, guidelines, checklists, tool kits, and ideas on how the pragmatic questions related to management issues in the sector can actually be taken on.

Our real product, Mr. Chairman, is change, and helping those involved in the sector, through their practitioners, to have the capacity to change, because it is very clear from this meeting, that we want to change the way the world manages its water and sanitation projects. Our future challenges really involve some very large questions in the sector. We want to take on unaccounted-for water. People around this table have mentioned that this accounts for as much as 30 and 40 and 50% of some of the national water systems. Where does this go, and how can we put in place the managerial and technical systems to try and cut down that total? We want to look at the institutional arrangements which best serve nations' municipalities. We want to try and move hygiene and sanitation from being the 'forgotten stepchild', as Mr. Scheltema just said of this particular area. I think our membership would also be prepared to take on cross-sectoral work and collaboration among practitioners across sectors, if this Noordwijk meeting wished us to do so, and if the resources were given to us to make this available. This is one of the thoughts that has been put forward, and I think our members would agree to say that this was a reasonable expansion of our work, remembering that we do work on the practitioner level.

Chair, let me close with two thoughts. Practitioners are motivated by two factors. One is a negative one. They want to avoid the 30-40% loss involved because water projects five years on far too often are still not working. Mostly, though, we are motivated by the positive impulse, which is the other side of the coin: that there is a better way to manage the world's water projects. That better way involves political choices, because water, as well as being an economic good and a social necessity, is a political issue. It is for the people in this room to take the honest assessment of who benefits by water decisions and by water management, and to make the change and to take the political decisions which can institute that change. The practitioners and the system will stand as ready as we can to try and implement this in thorough, practical and immediate steps.

Thank you very much.

**Speech given by Mr. Orlando M. Morales
Minister of Natural Resources
from Costa Rica**

Thank you Mr. Chairman,

I represent a small tropical country with a population of 3 million people and a size of 50,000 square kilometres, where, thanks to a large amount of rain and a mountainous geography, there are not very important problems as far as availability of water is concerned. I would like to indicate that most of the population receives drinking water of excellent quality. We have also been fortunate because we have resources from the Inter-American Development Bank for programmes for the creation of aqueducts and mini-aqueducts in rural areas. Also, another positive element is that there are studies that have been carried out, and resources for the protection of water areas, which enable us to ensure and guarantee the quality of water.

But there are also negative points. There are a series of deficiencies that have already been mentioned here, such as pollution and the problem of what we do with waste water. I think that what we are doing, is satisfying the needs of the population as far as drinking water is concerned, but we are not taking urgent measures as far as environmental sanitation is concerned. Furthermore, we have only done half of the task - we have offered the drinking water, but now we are starting on the second phase, which is to provide the mechanisms which are necessary for waste water to be reincorporated into the environment.

I am happy to be able to say that we have been interested in the approval of the new water law, because one of the problems that we've realized that we have, is that there are different institutions that are in charge of managing that resource. One institution is the one which deals with water that is going to be used for power generation. Another organization is in charge of drinking water, another is in charge of irrigation water, and the protection of rivers is another possibility. For that reason I think it is important to say that the most efficient use of water requires a coordination amongst institutions. That, at least in the case of Costa Rica, is something we have not achieved. Through this law, the creation of a direction for water resources will enable us to achieve this coordinated approach. This way we would protect water in all of its facets: aquifers, rivers, - and through its use and conservation we could use it rationally, and make the best use of those waters.

On behalf of sustainable development, I believe that this conference should recommend that more efficient use be made of water resources in every country, and I think that could be done through the creation of adequate legislation for the coordination of the different institutions or departments that are in charge of the management of that resource. It is true that every day we have less and less water, and so every day coordination has to be greater in order to be able to preserve that vital resource.

Thank you Mr. Chairman.

**Statement of Mr. Gasey Lhendup
Acting Minister of Communications
of Bhutan**

Mr. Chairman, Distinguished Delegates,

Mr. Chairman, given our small population size, low level of industrial development and urbanization, favourable forest cover and lesser economic activities, Bhutan, at this stage, is relatively in a better position compared to other countries in terms of drinking water and environmental sanitation. But the scenario will change, bringing increased pressure on resources. We are not complacent about it and are prepared to face the changes. Though planned drinking water supply began only around mid 1970's, and sanitation from 1991, with assistance from UNICEF, ADB and DANIDA, the achievement so far is very encouraging. In keeping up with the global objective of water and sanitation for all by the year 2000, a water supply and environmental sanitation programme was accorded priority in our Seventh Development Plan (1992-1997) with almost 6% of the total plan outlay. With the continued financial as well as technical assistance from the international agencies involved in water supply and sanitation in Bhutan, we achieved almost 48% and 75% coverage in drinking water supply in rural and urban areas respectively at the end of 1992. In the sanitation programme, 55% of the rural household were provided with latrines by 1992. Coverage in the urban area by 1992 was 85%. A Royal Decree issued in 1992 stipulates that every household must have a latrine, which gave further impetus to the sanitation programme.

Decentralization of the water supply and sanitation programme has brought significant changes in responsibilities, attitude, management and pattern of use of drinking water supply and sanitation amongst the beneficiaries. Except for some subsidy in terms of materials provided through donor assistance, beneficiaries are made responsible for need and resource management, construction, and maintenance of water supply and sanitation programmes in the rural areas. The phasing out of the government role as a provider was difficult initially, but it was not impossible.

Drinking water has been treated as a free good particularly in the urban areas. This attitude has prompted a not so desirable pattern of water use resulting in enormous water waste. Government is now in the process of introducing water meters and tax in the urban areas. Such a step, we believe, can not only improve the revenue base but will result in significant improvements in drinking water use and management. Simultaneously, efforts are under way

to build up institutional capabilities through training of personnel in water supply and management services, quality control, water use, etc., with assistance from international agencies involved in the water supply and sanitation programmes in Bhutan.

Urbanization is a fairly recent phenomenon in Bhutan. However, environmental sanitation is emerging as an eminent threat, particularly in the urban centres. Solid and liquid waste disposal practice is deplorable resulting in environmental and river pollution and health hazards. The government is now in the process of firstly bringing in to place a regulatory framework for liquid and solid waste disposal and then streamlining the disposal practices. Negotiations are under way with the Royal Netherlands Government for assistance under the Bilateral Sustainable Development Programme. Bilateral Agreement between Bhutan and the Netherlands, is scheduled to be signed on 21 March 1994, here in the Netherlands coinciding with this conference. A National Environmental Commission was also established in 1990, with assistance from DANIDA, under the umbrella of the National Planning Commission. The Commission oversees national environment issues and coordinates sectoral environmental activities.

Problems related to drinking water and environmental sanitation are very broad and we recognize that the problem cannot be addressed in isolation. Accordingly, the Government adopted an integrated approach through sectoral coordination. Development programmes for health, education, natural renewable resource, industry, human settlements sectors and land use patterns are closely interlinked and coordinated with development programmes for water supply and environmental sanitation. Also an attempt is being made to bring closer collaboration among stakeholder, government, NGO's, beneficiaries and international agencies through constant dialogue and negotiation.

Mr Chairman, all Global Conferences succinctly reflected the problem of drinking water and environmental sanitation and came up with principles or action programmes to be implemented at national, regional and international level. The draft conference out put document sharpens the action programmes contained in the Rio UNCED Summit Agenda 21, Chapter 18, and clearly outlines the action to be taken at national and international level, with time frames.

The action programme pertaining to drinking water supply and environmental sanitation adopted by Bhutan which is out lined above is fairly consistent with the Action Programme contained in the draft out- put Document. I assure you Mr. Chairman, that my government will make an earnest effort to implement the Action Programme.

Thank you, Mr. Chairman.

WATER AND PEOPLE
presented by Mr. Abonyal Klogora, KENYA.
representing the NGO community

Thank you Mr. Chairman,

People's participation and capacity-building at the nearest appropriate level are necessities to realise the outcomes of this conference. Unfortunately, the International Water Decade did not achieve those goals - at the cost of continuing suffering and conflict about water.

People's participation in decision-making in water and sanitation projects should not be seen as some luxury or additional idea to idealize. It should be seen as a critical element in preventing future failures.

People's participation leads us to new approaches to directing investments, which will be more cost-effective and better adapted to the natural environments. People are a resource of work and intellect that is being under-utilized. Focus should shift away from large-scale capital-intensive projects to people-centred ones.

Secondly, when people are excluded from decision-making, the tendency is for them to search for ways to take what is rightfully theirs. Experience from some parts of Asia and Africa shows that considerable damage is being done to capital-centred water projects by boring holes in the pipelines. People's active involvement could have prevented this situation.

If people do not have access to decision-making processes about water projects, those projects will fail because of people's unexpected and unaccounted-for reactions, which will bring about cost-ineffective output.

We, NGOs, support governments' commitments to people's participation and institution-building. However, it remains unclear how and to what extent these commitments will be translated into practice. The political draft still leaves, in some instances, the impression of a top-down approach.

The NGOs strongly plead in favour of integrating the term 'people-centred' in the text, in stead of 'people-oriented' as being used now. We also support the framework for meaningful participation, as mentioned in Chapter 1, point 2(d), and Chapter 3, point 4, addressing the need for access to information and participation in decision-making.

The people-centred approach leads to active involvement of communities in the entire process of decision-making, implementation and management. Our experience shows that financial support to NGOs facilitates this process in the most cost-effective way.

An investment in people's participation is an investment in bringing about a future for water and a hope for survival.

Thank you Mr. Chairman.

**Statement given by Mr. A. Rüegg,
Ambassador to the Embassy of Switzerland
on behalf of Mrs. Ruth Dreifuss, Minister of the Interior**

Chairman, honourable Minister, distinguished
Delegates, Ladies and Gentlemen,

We share the common concepts for action proposed by the Conference: fostering partnership, gender perspective, financial sustainability and appropriate technology. The integration of the water supply and sanitation sector into national strategies for water resources management and environmental protection sets the framework.

The Swiss Development Cooperation lays strong emphasis on the recognition of the specific socio-cultural and natural context in which collaboration and partnership takes place. Failing to recognize these factors properly is - in our opinion - one of the key causes of the unsatisfactory performances of service and utilities. Let me share the following five building blocks essential for collaboration and partnership.

1. Participation and motivation of all parties involved are decisive.

We have to provide the people with what they want and not with what we think is best. Mobilisation for participation is required but fair negotiation of the terms for operating facilities is the basis for efficient management, whether it is by a utility company or community-based. Gender-balanced approaches are a must.

2. Clarification of the role of the different actors is necessary.

The transfer of the role of governments from provider to enabler and regulator is crucial but has to be coupled with the strengthening of the role of communities, NGOs and the private sector.

3. Adequate financial participation of the users is required.

This implies that tangible advantages for the users must derive from their contribution to water supply and sanitation. Projects should be designed to enable users to choose and pay according to their choice. Upgrading the level of services in stages may be another requirement of a demand-oriented approach.

4. Appropriate technologies should reflect the users' preferences.

Choosing a technology also means being aware of potential new risks to cope with. Reduction of health risks or ecological risks may create new risks, like

high maintenance costs or the risk of weakening the existing organisations.

5. Sustainability of any service or utility depends on the ability of the users to cope with new problems.

Training for new skills has to be based on reinforcing the existing problem-solving capacity. The right information and appropriate communication tools to transfer know-how are basic. Many networks exist already which need to be coordinated and strengthened.

Switzerland recognizes the role of networking as a key mechanism for change and supports a number of networks. They would all merit mention if time permitted. Let me point at the **Water Supply and Sanitation Collaborative Council** instead. Its global forum is the expression of partnership among professionals from countries and from external support agencies, NGOs, professional associations and information, research and academic institutions. We strongly support the appeal in the action plan to strengthen it. We are open to the suggestion that it may be the facilitator for the establishment of a more comprehensive world water resources forum or council.

Thank you Mr. Chairman.

SESSION 3: WATER, HEALTH AND THE ENVIRONMENT - INTEGRATED WATER POLICY

Statement given on behalf of Mr. Michel Barnier, Minister for the Environment of France

Madam President, Ministers, Ambassadors, Delegates, Mr. Chairman, Ladies and Gentlemen,

First of all, I must pass on to you from Mr. Barnier both his good wishes for the success of the work of this conference and his apologies for not being able to be with you today, as he had hoped. He begs you to excuse his absence, which is due to his professional duties.

In today's session, devoted to the subject of "Water, Health and the Environment", we are dealing with the very essence of matters about which he wanted to talk to you.

In fact, as long ago as 11 January, the French Minister for the Environment suggested presenting to you the conclusions of the "Round Table on Water and Health in Underprivileged Urban Areas", which was held at his initiative in Sophia-Antipolis.

Moreover, it was suggested that the recommendations made by this Round Table be outlined for you in the appendix to the "political declaration" submitted for your approval, with a view to presenting them to the next meeting of the commission on sustainable development, planned for May. Through this initiative, coinciding with the present Conference, France is demonstrating its desire to contribute to the implementation of the Action Programme (also known as "Agenda" 21) adopted in Rio on 14 June 1992.

The dire need to improve the situation regarding drinking water and sanitation, which was highlighted in this document, is even more pertinent today, as was recently underlined in the 1993 report by the UN Food and Agriculture Organisation (FAO). The situation in this respect is deteriorating at world level.

This vividly demonstrates the importance of our work and the need to stress the complementarity between the "political declaration" under discussion here, which the French government is willing to support to back up the observations it has presented, and the 14 recommendations of Sophia-Antipolis, which no doubt reflect your concerns.

The prospects of world population growth and the continuing accumulation of people in urban conurbations mean that immediate action is needed. This is why specific water problems facing

underprivileged urban areas have to be more systematically taken into consideration. In particular, it seems desirable for sponsors to ensure that the provision of drinking water is accompanied by adequate sanitation and waste treatment, by providing various levels of service, encouraging management methods which are better suited to the local situation and by involving the population and their local actors, including the users, who should be made aware of their responsibilities. The economic value of water must take account of its use value.

In this context, it is evident that we must give serious consideration, in conjunction with the countries in question, to the plans and methods of cooperation which form the basis of our relationship.

Consequently, the French government intends to accept its share of responsibility for proposals and action in these fields at international level.

Ladies and Gentlemen, thank you for your attention.

Madame le President, Mesdames et Messieurs les Ministres, Mesdames et Messieurs les Ambassadeurs, Mesdames et Messieurs les Delegates,

Je dois tout d'abord vous transmettre a la fois le vœux de succes de M. Barnier pour la reussite des travaux de cette Conference et ses Regrets de ne pouvoir etre des votres, comme il l'avait souhaite, ce jour. Il vous prie de bien vouloir excuser son absence, due aux obligations de ses fonctions.

Car nous sommes aujourd'hui au cours de cette session consacree au theme "L'Eau, la Sante et l'Environnement" au coeur ds preoccupations dont il souhaitait vous entretenir.

En effet, le Ministre Francais de l'Environnement proposait, des le 11 janvier, de vous presenter les conclusion de la Table Ronde sur l'Eau et la Sante dans les Quartiers Urbains Defavorises" tenue a Sophia-Antipolis a son initiative.

Ce sont d'Ailleurs les recommandations qui en sont issues qu'il vous a ete propose d'introduire en annexe a la "declartion politique" soumise a votre agrement, avec la perspective de les presenter a la prochaine reunion de la commission pour le developpement durable, prevue en mai. Par cette initiative convergente avec la presente Conference, la France manifeste son souci de contribuer a mettre en oeuvre le Programme d'Action (aussi appele "Agenda" 21) adopte a Rio, le 14 juin 1992.

L'urgente necessite d'Ameliorer la Situation en matiere d'eau potable et d'assainissement qui etait mise en avant dans ce document est encore plus actuelle aujourd'hui, comme le soulignait tout recemment le rapport pour 1993 de l'Organisation des Nations Unies pour l'Alimentation et l'Agriculture (F.A.O.). La Situation en la Matiere se degrade a l'Echelle mondiale.

C'est dire l'importance de nos Travaux et l'interet de souligner la complementarite entre la "Declaration Politique" en debat ici, a laquelle le Gouvernement Francias est pret a adherer au benefice des observation qu'il a presentees, et les 14 recommandations de Sophia-Antipolis dan lesquelles, je pense, vous reconnaitrez vos preoccupations.

Les perspectives de croissance demographique a l'echelle de la planete et l'accumulation continue des populations dans des concetrations urbaines imposent d'agir san delai. C'est pourquoi, il convient de prendre en compte plus systematiquement les situations specifiques que rencontrent les quartier urbains defavorises dans le domaine de l'eau. En particulier, il apparait souhaitable que les bailleurs de fonds s'assurent que la fourniture d'Eau potable s'accompagne d'un assainissement satisfaisant et d'un traitement des dechets, en proposant des niveaux de services diversifies, en encourageant des modes de gestion mieux adaptes au contexte local et en impliquant les population et les acteurs locaux, y compris les usagers qu'il convient de responsabiliser: la valeur economique de l'eau doit tenir compte de la valeur d'usage.

Dans cet esprit, il est clair que nous devons mener une reflexion approfondie avec les pays concernes, sur les schemas et les modes de cooperation qui inspirent nos relations.

Aussi, le Gouvernement Francias entend prendre sa part de responsabilite en matiere de proposition et d'action dans ces domaines sur le plan international.

Mesdames, Messieurs, je vous remercie de votre attention.

**Statement on behalf of Mrs. Sheila Copps
Minister of the Environment, and Deputy Prime Minister
of Canada**

On behalf of the Honourable Sheila Copps, Minister of the Environment, and Deputy Prime Minister, it is a pleasure to address this assembly. In Canada we believe that all the citizens of the world should have a safe and dependable supply of water both now and in the future, and we are translating that belief into actions at the country level.

To address freshwater issues in Canada, and indeed globally, it is necessary to develop partnerships. One of the principal partnerships we have developed within our country is with the provinces through the Council of Ministers of Environment. Through this group we have been developing a strategy that will address water conservation initiatives, water quality guidelines and a plan of work to address aquatic ecosystem health.

Within Canada we are developing our action plans for water supply and sanitation within a broader context of water resource assessment from the ecosystem approach. Water cannot be managed without taking into account the factors influencing it and its impacts on other elements of the ecosystems. For example, in Alberta a new act takes an integrated approach to the protection of air, land and water. Manitoba has passed a new act addressing remediations of mining projects in a way to protect the water resources. In Quebec waste treatment regulations reflect the broader ecosystem approach. Ontario has launched the Municipal/Industrial Strategy for Abatement (MISA) designed to set stringent standards for industrial sectors and promote the pollution prevention approach. In collaboration with provinces "flagship" programs have been implemented to reduce toxic contaminants, promote pollution prevention and to take an integrated approach.

We have also developed partnerships with Canadians at large through environmental non-governmental organizations. These organizations are very visible here at Noordwijk in the form of their "Drop of Hope". The Drop of Hope has recently been in the skies of a number of Canadian cities as part of the celebrations leading up to today, World Water Day. This symbol may be familiar to some of you as the balloon was launched in 1992 at Rio de Janeiro and has also been seen in the skies of a number of countries to bring worldwide attention to the importance of water.

Mr. Chairman, we in Canada have found that the

answer to our problem is action rather than more planning. We have already developed the blueprints for this action in the form of the Dublin Statement and Agenda 21. Each of us can take these blueprints and adapt them to items for action within our respective countries. I urge you to get on with the task.

In closing, Mr. Chairman, I would like to present to you a proclamation endorsed by the Canadian Minister of Environment, proclaiming today March 22, 1994, World Water Day in Canada. Proclamations have also been signed by numerous mayors of municipalities and other elected officials in Canada to raise the awareness and call on all Canadians to recognize their duty to protect our natural water resources and to emphasize that global access to safe water supplies is matter of right.

Thank you very much.

**Statement on behalf of Mr. Valdo Spini
Minister of Environment
of Italy**

Après la Conférence des Nations Unies sur l'environnement et le développement (Rio de Janeiro, 3-14 juin 1992), dans le contexte du Programme Action 21, chapitre 18, on été organisées en Italie plusieurs réunions au fin d'examiner les problèmes liées à l'utilisation et à la gestion de la ressource hydraulique en Italie et dans le bassin Méditerranée.

Le 28, 29, 30 Octobre 1992, le Gouvernement Italien a accueilli à Rome la IIe Conférence Méditerranéenne de l'Eau promue par la Commission des Communautés Européennes.

A titre d'information pour les participants à la CONFERENCE MINISTERIELLE on va joindre en annexe:

- 1) La Table des Matières du volume "LES EAUX EN ITALIE, aspects techniques, juridiques et administratifs" contribut italien à la Conference de Rome.
- 2) La PREMIERE PARTIE du même volume concernante en synthèse:
 - 2.1 LE CADRE LEGISLATIF
 - 2.2 LA PLANIFICATION
 - 2.3 LA GESTION DES SYSTEMES(Annex 1)

Pour ce qui concerne le CADRE LEGISLATIF (point 2.1), après la Conférence de Rome, a été publiée la Loi 5 janvier 1994, no. 36 qui donne dispositions en matière des ressources d'eau.

La nouvelle Loi, à integration de l'ancienne législation qui avait le but prioritaire de protéger les eaux par la pollution par les rejets, va introduire une nouvelle stratégie globale qui concerne:

- la protection et l'usage des ressources d'eau;
- l'économie d'eau;
- les modalités pour la réutilisation des eaux usées etc.
- la révision rationnelle des institutions chargées de la gestion des ressources d'eau.

En annexe 2, le rapport présenté par l'Italie à l'Assemblée Générale des N.U. (New York, 23 novembre 1993) sur Développement et Coopération Economique Internationale.

[Spoken text]

Thank you, madam chairman.

I am not the minister I have only been charged by the Minister, and on behalf of Mr. Spini, the Italian Minister of the Environment, to speak to the Conference. He has not been able to come, because of several commitments that he had, but, on behalf of his whole delegation I am very happy with the progress that has been achieved at this conference. It is a new approach in this field which was already mentioned in the Dublin Conference and discussed at the Rio conference. The Italian delegation would like to mention two initiatives that were taken in Italy, after that ministerial conference, in the field of water and environmental sanitation, both at the national level or within the framework of international cooperation. At a national level it comprises a series of framework legislations which integrate all legislation whose priority objective was to protect water from waste, and this new law is going to introduce a global strategy which basically concerns the protection in the use of water resources, saving of water, modalities for the reutilisation of used waters and a rational revision of the institutions that are in charge of the management of water resources. As regards international cooperation Italy committed itself to the application of the directive included in Agenda 21, and in particular the directives included in chapter 7, on the services for the supply of water and the protection of the environment for poorer classes in urban centres in developing countries. Based on that type of compromise and commitments, Italy participates in the activities of the Collaborative Council. Amongst other things, Italy has coordinated and coordinates the Council's Working Group on Organization. The participants that are interested in knowing more details of the Italian initiatives, which I have mentioned very briefly, can find a document with annexes on the document table outside this room.

**Statement by Mr. Børre Pettersen, State Secretary
Ministry of Environment, Norway**

Madam Chairperson,

First of all I would like to express my thanks for the invitation to this Conference and give my compliments for the initiative that has been taken by Minister Alders. I quite agree with the statement in the letter of invitation that the initiative and outcome from UNCED in Rio in 1992, especially Chapter 18 in Agenda 21 concerning drinking water and environmental sanitation, now need to be taken in hand by the countries themselves.

It is now necessary that the conservation of water resources and the prevention and control of water pollution are going to be important parts of national policy. To get drinking water of sufficiently good quality for human health, calls for active participation of national and local public authorities and the stakeholders as well as international cooperation. It is alarming that a larger percentage of the world's population are today without access to safe drinking water than was the case before the Water Decade started. It is therefore more important than ever that by means of international cooperation and activity, to facilitate the exchange of experience between countries in order to assist countries which need it, to find the best way of getting sufficient drinking water of good quality.

Freshwater resources are an essential component of the earth's hydrosphere and an indispensable part of the ecosystem. Water is a finite and vulnerable resource and is needed in all aspects of life. The widespread scarcity, gradual destruction and aggravated pollution of freshwater resources in many world regions, along with the progressive encroachment of incompatible activities, demand integrated water resources planning and management.

Demand for water, and the services it can provide, is increasing worldwide, particularly in arid and semi-arid lands. Under pressure from rising demand, national water resources will be increasingly exploited. Some may even face depletion. Population growth, agricultural expansion, and the ever-rising expectations for improved standards of living worldwide, have all contributed to the realization that water is not an unlimited resource. Competition for both quality and quantity of shared water at a local level often leads to international water conflicts. Many IECs (International Environmental Conflicts) have been triggered because of the numerous shared water

resources worldwide. Today there are approximately 200 large river systems which are each shared by two or more countries. The need for basin-wide management is becoming more acute as the number of IECs increase. Cooperation at an international level is essential in order to manage the resource properly and avoid IECs. If countries continue to consider only national priorities while developing and using international river systems, conflicts will undoubtedly arise.

Water should be considered as an economic good, with a value reflecting its most valuable potential use. Efficient allocation of water to its many alternative uses and the integrated management of water and land resources, with involvement of the stakeholders, require that the social value of water is recognised, i.e. that water is considered as an economic good. Failure to recognise this principle has contributed to wasteful and environmentally damaging use of water.

Making water available and usable usually involves investment and operation costs. Growing demand for water means that satisfying the needs of one use increasingly preempts the use of that water by another user. In planning and decision-making about water allocation, it is therefore an indispensable tool to include the additional cost and make them transparent - the opportunity and environmental costs of alternative uses.

Recognising water's full value in achieving its most efficient management in relation to the social goals of planning and decision-making does not necessarily require corresponding charges for all uses of the water. In fact, it is important to distinguish between considering the full costs when making choices between different uses of land and water, and using a range of charge options in demand management.

The economic viability of any water supply must be analyzed before development, in terms both of consumer **willingness** and **ability** to pay for the operation and maintenance of the facility. Whether consumers should also contribute towards the capital costs of the facilities, is a policy decision which should be clarified ahead of any investment. To ensure sustainability of the water resource used, polluters must cover adequately the costs of reclaiming or protecting that water.

Water and land resources should be **managed at the lowest appropriate level**. Centralised and sectoral water resource management has often proved inadequate to address local water management problems. The role of governments needs to change in order to enable users, local institutions, and the formal and informal private sectors to play a more direct part. The most appropriate level of water resources management may range from household level to the level of international river basin committees, depending on the issue at hand. The important point is that decisions or actions concerning land and water resources management should be taken as close to the root of the problem as possible, i.e. at the lowest appropriate level, and that higher levels should primarily provide an enabling environment for decentralised and integrated management.

The role of women.

Women are the primary providers of water to the family in most part of the world. They also carry the responsibility for the health of the family and the care for the sick, and therefore suffer most seriously the consequences of inadequate water supply. Their involvement in planning, and as managers of the supplies at local level, in poor urban areas as well as rural settings, is an important factor for successful water management.

International cooperation and activity to facilitate the exchange of experiences between countries in order to assist countries to find the best way of getting sufficient drinking water of good quality is increasingly important. These issues have been given high priority in the Norwegian Development Cooperation, and will continue to do so. We assume that these principles will be an integrated part of all water management planning including the multilateral system.

In concluding, Norway endorses the Ministerial Declaration and the attached Action Programme, and looks forward to cooperating in advancing the relevant proposals contained in the documents and the forthcoming CSD session. I would like to emphasize our strong support for the scientific global water assessment suggested in the Action Programme.

Thank you Mr. Chairman.

**Statement given by Mr. Valeri Filonov,
the Deputy Minister of Health
Belarus**

Mr. Chairman,

The delegation of the Republic of Belarus fully backs the documents of this conference. Our Republic consists of 10.5 million people and at the moment the water is of good quality. However, as a result of our economic difficulties, which are the same as those suffered in all the other former Soviet Republics, our country is finding it difficult to set up adequate sanitation services in the smaller towns and villages. Therefore, about 50% of our rural population is served with water from not very deep wells, and as you all know, the Chernobyl disaster has affected vast areas of our country, and these shallow wells are not adequately protected from radionuclide contamination. There is also a problem of intensive use of mineral and pesticide agricultural products, and we know that in the past there has not been enough study of global catastrophes such as Chernobyl. There is a further problem of territories which do not have enough water, and there are a fair number of them in Belarus. It is the same with our sanitation facilities, and we are very grateful to the representatives of the World Bank, who have shown great understanding of these problems, and are planning to support us in our attempts to tackle them.

We consider the water, health and environment aspects of this conference of particular importance, because the quality of the water we can provide to our population will have an immediate effect upon their health. The biological and chemical aspects are paramount here. To provide good quality water in a stable way is not an easy task, and as we view it, the most important measures that the government and people can take in this area are the following: firstly, provision of adequate financing to provide access to community water programmes, and an adequate plan of construction for water supply and sewage facilities, which will cleanse the water and monitor the quality of the drinking water. For this, of course, we need trained staff, and we also need to protect the water catchment areas themselves. A priority rule, as far as health is concerned, is the planning for both water supply and sanitation. We also need standards and regulations for the drinking water, and again, monitoring to make sure these standards are adhered to.

The polluter pays principle is also important. It is not only the financial responsibility, but the moral responsibility which counts here. It is a question of choosing the right priorities for our strategy in order to sustain an adequate water quality, and this will need improved planning in order to achieve our aims.

Thank you.

**Statement on behalf of Mrs. Ros Kelly, MP
Minister for the Environment, Sport and Territories
Australia**

Australia is the driest inhabited continent. Seventy-five per cent of its land surface is arid or semi arid. However, this general picture obscures significant differences which exist around the country. The climate ranges from tropical to cool temperate. Rainfall and stream flow are significantly more variable than on any other continent. Water resource managers in Australia have to deal with a wide variety of the problems which occur elsewhere in the world. This presents great challenges and has produced a wide range of solutions to water supply and sanitation problems.

Most Australians have access to excellent supplies of high quality water. Seventy-nine percent of the population lives on the south eastern and south western seaboard and eighty-five percent are urban dwellers. There are some isolated areas which have inadequate supplies due mainly to the high per capita costs of providing this supply.

Problems

Urban living and industrial and agricultural activities have had an impact on the quality of Australian water supplies. Problems of national importance are:

- . The longterm security of supplies for expanding urban communities;
- . Provision of adequate services to people in remote communities;
- . Sewage management, and runoff from agricultural and urban areas;
- . Eutrophication, and associated toxic algal blooms in both marine and fresh waters;
- . Environmental integrity of water bodies, including in the coastal zone;
- . Rising salination and waterlogging of agriculture soils, particularly in irrigation areas; and,
- . Climate change uncertainties.

Agenda 21

Australia is in the process of implementing or has already implemented recommendations arising from Chapter 18 of Agenda 21, concerning the protection of the quality and supply of freshwater resources. These activities include:

- . An integrated strategy for water supply and protection of the water environment;
- . The protection and conservation of water resources;
- . The optimisation of water resource allocation;
- . Implementation of demand management and water pricing mechanisms;
- . Cleaner production and waste minimisation strategies;
- . The involvement of the public in water quality management; and,
- . The encouragement of environmentally sound water planning, water treatment and supply technology.

Australian water management strategies

Australia is a federation of states and has adopted a cooperative and coordinated national approach. In the management of national water policy, the central Commonwealth government plays a coordination role. The states and territories are responsible for the implementation of national strategies and contribute to the development of the strategic approach.

A National Water Quality Management Strategy is being developed by the Ministerial Councils - Agricultural and Resource Management Council of Australia and New Zealand, the Australian and New Zealand Environment and Conservation Council and the National Health and Medical Research Council.

The Strategy's objective is "to achieve sustainable use of the nation's water resources by protecting and enhancing their quality, while maintaining economic

development". The Strategy covers the entire water cycle and it encompasses the views of the community and specific interest groups. It meets and exceeds the targets set in Chapter 18 of Agenda 21 to have "designed and initiated costed and targeted national action programs".

The National Water Quality Management Strategy incorporates a national policy framework, and guidelines for drinking water, sewerage systems (effluent management, acceptance of trade wastes, sludge management and the use of reclaimed water), rural water quality, Groundwater protection, urban storm water and water monitoring and reporting. The Strategy incorporates a document which sets out water quality criteria for fresh and marine waters.

The drinking water guidelines are in an advanced draft form. They provide standards for pollutants in drinking water consistent with the World Health Organisation Guidelines. The Australian guidelines provide scope for communities and water authorities, in consultation, to make changes when appropriate. Generally, the levels of pollutants which impact on human health are expected to be followed. However, those which cover aesthetic parameters may be dealt with more flexibility.

The development of the Strategy is linked with various catchment management activities in the Australian states, and with a National Coastal Zone Policy. Copies of key documents of the Strategy have been provided to the Conference Secretariat.

Whilst National Water Quality Management Strategy has no legislative base, states and territories have powers to manage water resources and the environment. An Inter Governmental Agreement on the Environment is in place to ensure national consistency. As a result, legislation is being developed which has the capacity to enforce nationally agreed ambient environment standards for air and water.

The Australian Government and the Australian states have devoted significant resources to total catchment management, water industry innovation and into research on minimum water flows to maintain environmental integrity of catchments.

Australia has expertise and experience in providing drinking water and sanitation for Australian indigenous peoples living in a range of conditions from arid deserts to wet rain forests. These have been tackled with various levels of adequacy, and we would like to share the experience of other members of the

Conference to gain mutual benefit. We are able to assist in the international endeavour to develop integrated structures for water resources and environmental planning, and to improve the supply of water and sanitation to communities living in remote regions.

**Statement given by Mr. J. Vytlačil
Deputy Minister of Health
the Czech Republic**

Thank you Madam,

The Czech Republic, as an inland country, is fully dependent upon precipitation, and appropriate use of water resources is the limiting factor to our further development. In the Czech Republic there are over 8.5 million citizens. Eighty-five percent of the population is supplied by the public drinking water systems, managed by central governmental organizations. The rest is in private, individual, or local community's hands. Over 440 drinking water treatment plants produce 1200 million cubic metres of drinking water per year. Two-thirds of this amount is produced from surface water sources - rivers and reservoirs - and one-third is from underground water. The share of the population living in houses connected to public sewage systems is 73%. Nine hundred waste water treatment plants treat 900 million cubic metres per year of waste water.

This year we will celebrate the 100-year anniversary of our water supply programme and the installation of appropriate organizations. Our drinking water quality standards follow the World Health Organization's recommendations and include 94 indicators. The system of controls is nearly the same as in the Netherlands. The main problem now is the decentralization and privatization of drinking water and sanitation services and agencies. For this reason we support all of the recommendations discussed in the Political Statement and the Action Programme of this Ministerial Conference.

Thank you Madam.

**Statement on behalf of Mr. Yossi Sarid
Minister of the Environment
of Israel**

As we all know, the greater part of the Middle East region is covered by desert, and throughout history has suffered a dearth of water.

This situation obligates Israel, together with its Arab neighbours, to cooperate for the purpose of creating new water resources projects such as rain enhancement, desalinization plants, and high quality waste water treatment and reuse.

And since water quality and water quantity are interdependent, our efforts are also directed towards improving the water quality of existing resources.

We estimate that in two decades the population of the Middle East will double, and the demand for water in the region will increase by approximately one billion cubic meters per year. Thus, any present plans for allocating existing water resources are not relevant for the future: we must focus and combine all our powers and resources in an effort to solve future problems of water deficit.

We will concentrate on purifying waste water and using recycled water for agriculture in a manner that will not pollute ground water, while increasing the implementation of water saving technologies in agriculture.

In addition, the reconstruction of obsolete water transport systems will dramatically improve their efficiency, and save up to 70% of water that today is liable to be lost through leakages in these systems.

Israel is presently engaged in research concerning the use of water - including brackish and marginal water - in arid and semi-arid areas. This research can contribute to the struggle of many countries against desertification.

The question we face is not how we will obtain more water. The question is at what price it can be obtained and how we will be able to attract the investment and production resources that are necessary for establishing a regional water infrastructure. The answer lies in proper policy. The countries of the Middle East must organize to build the policy and organisational foundation that can implement relevant decisions.

Mr Chairman,

In conclusion I would like to say that Israel would be happy to strengthen its involvement in international activity on the subject of drinking water and sanitation.

**Statement by Mr. A. Ligale
Assistant Minister for Land Reclamation,
Regional and Water Development
from Kenya**

Mr. Chairman, Your Excellencies, Honourable Ministers, Distinguished Delegates, Ladies and Gentlemen,
Mr. Chairman,

May I, First of all, take this opportunity to congratulate you in the manner in which you have conducted the proceedings of this conference. I am sure with this kind of spirit we shall achieve our set out goals for drinking water and environmental sanitation under Agenda 21 and in particular, for those of us in the developing countries where the need for this programme is more apparent.

Mr. Chairman, in the recent past, a number of factors have adversely affected the water and sanitation sector in Kenya. It is worth mentioning two of the most important ones here. First, the drought: rivers, dams and pans have either dried up or have very low yields which cannot support the normal demands of the population. Wells and boreholes have declined in their yield and some have even dried up. This means that the women have to walk long distances to fetch water. In some water supply systems, water is being rationed because of decreased yields. This is a phenomenon that could not have been foreseen at the beginning of this decade. Inevitably, the environment has been depleted and degraded in parts of the country through overgrazing. There has also been loss of animals and income which leads to the second point, poverty: which has reduced the means of survival in many communities. This situation is worsened by population pressure, taking into account availability of arable land.

Mr. Chairman, against this background, the government is facing many challenges today. It is worth considering only four of these challenges here.

First, the role communities and women play must not be under-estimated. Nor should the role of non-governmental organisations and donor agencies be taken for granted. It is our challenge to improve the capacities of the communities through skills both managerial and financial. In this context therefore, the role many organizations involved in the water and sanitation

sector play is greatly appreciated. Without these organizations participating, we would be left far behind in achieving the objectives spelled out in Agenda 21. As a matter of fact, the role the women play is complementary to that of the government, since women strongly influence the success of any community based water and sanitation systems. They are the people who bear most of the burden of fetching the water and the overall sanitation education to the families.

Mr. Chairman, in spite of the above, however, the coordinating mechanisms for the organisations mentioned are generally weak. This sometimes leads to duplication of efforts and waste of resources, resources that are always scarce. We realize that effective and efficient coordinating mechanisms are desirable and must clearly spell out the roles of the communities, women, non-governmental organisations, government and other stakeholders in this programme area.

Second, low-cost technological options must be a priority. The affordability and sustainability of these options with regard to the community are essential for the success of the programme during this decade.

Mr. Chairman, it is now clear to us that rural communities manage best facilities that are low cost, affordable by themselves and sustainable over a long period of time. Manageable gravity systems, protected/equipped wells/springs, roof/rock catchment systems especially at household level and small VIP latrines fall under this category. Such systems cannot, however, be very useful in urban and semi-urban areas. It therefore becomes important in such areas to mobilize resources both nationally and internationally through either bilateral or multilateral arrangements to serve the urban and semi-urban areas with adequate infrastructure projects.

Third, many systems are operating below optimum levels. Yet they could be put back to use with minimum financial input to serve even more communities - provided, of course, the prerequisite management and financing are in place. Due to the number of such projects in Kenya, we have recognized the fact that if most of these projects are to be put back into operation, additional financing through bilateral aid programmes and multilateral bodies is necessary to complement the resources mobilized internally. However, wherever possible these rehabilitated systems could be best managed by communities themselves for sustainability purposes.

Mr. Chairman, our experience from a few such projects rehabilitated with the involvement of communities, is that there is considerable cost reduction just by involving communities in planning, and implementation of the rehabilitation measures, and more important, in operating and managing these systems. The government is, therefore, encouraging many more communities to run their own rehabilitated systems with the government only providing technical support.

Fourth, monitoring mechanisms are necessary, and in particular community-based monitoring. These should be simple and clear, and periodically assessed and analysed for corrective and preventive measures to be taken in good time. For this enables the government to know where it is (in the sector), where it is going and how it is going to get there. Furthermore, this information is of immediate use to the community for their decision-making process. This method of information collection requires only limited capacity building at community level.

Mr. Chairman, in order to assist in the coordination and in the monitoring exercises at the district level, the Kenya Government formed District Water Boards, through these boards the government is encouraging and supporting community-based information collection. The same boards at district level coordinate the relevant activities for balanced use of available water resources. At national level the government is in the process of strengthening the water apportionment board for the apportionment, protection and conservation of water resources. Furthermore, during the Water Decade, 1981-1990, the National Action Committee was formed to coordinate the activities of the water and sanitation sector.

With decentralisation and reduced financing, the Committee became less active, but the role the committee played during its active time was significant. Plans are now at an advanced stage to put in place a committee with a similar role during this decade. This committee will have its reference to include the coordination of mechanisms aimed at enhancing sector collaboration, uniform policy and planning and sharing of sector relevant information at national, regional and international levels.

Finally, Mr. Chairman, may I take this opportunity to congratulate the organisers of this meeting. They have done a commendable job.

Thank you Mr. Chairman, Ahsante sana!

**Statement by the Representative of
The African Development Bank
Mr. M. Leke**

Ministers, Experts, Ladies and Gentlemen,

First of all I should like to offer the apologies of the President of the African Development Bank, Mr. Babacar N'DIAYE, to the Dutch authorities. For reasons beyond his control, he was unable to attend this important meeting, devoted to a problem which is vital for the world as a whole and especially for the African continent - that of providing everyone with drinking water and an adequate sanitation system.

However, the President insisted that the African Development Bank be represented at the Conference, which is precisely the role which has been entrusted to me.

Ministers, Experts, Ladies and Gentlemen,

The availability of a guaranteed supply of drinking water and an adequate sanitation system for urban, suburban and rural populations is a major concern which is for the most part shared by the African Development Bank Group. In financing actual projects and general and specific studies, this Group is making a significant contribution to development and intensification throughout this sector in Africa.

By way of illustration, during the decades 1970-1980 and 1980-1990 the Bank Group devoted approximately 12% of its loans and donations to the water supply and sanitation sector in Africa, to a total amount of 1,100 million American dollars. The share of this amount allocated to sanitation, namely 22%, is still modest and could reach a higher level in the years to come, thanks to the new strategy adopted by the Bank Group for this sector.

These efforts, together with those of other multilateral and bilateral institutions and NGOs, have enabled genuine progress to be made, particularly during the International Decade of Drinking Water and Sanitation, both in urban and suburban areas and in rural zones. The positive efforts made were particularly noticeable in the field of public health. In this context, I would mention the case of some rural zones in Burkina Faso, Mali, Nigeria and Togo where the introduction of drinking water and health

education have brought about a reduction of at least 80% in the numbers of those suffering from dracontiasis, commonly known as Guinea-worm disease.

These results are indeed encouraging, but we must recognise that the road ahead of us is long and dangerous, particularly in the light of Africa's accelerating demographic growth, which is averaging about 6%.

The major challenge to be faced is undoubtedly that of providing rapidly growing populations with drinking water and adequate sanitation systems. The African Development Bank recognises such action as the best way of combating cholera, typhoid, dracontiasis, malaria, etc. In fact, we must remember that of the forty or so serious illnesses affecting most developing countries, over half are carried mainly by unclean drinking water, inadequate and damaged sanitation systems and the absence or inadequacy of health education.

Ministers, Experts, Ladies and Gentlemen,

Before bringing this brief presentation to a close, I would like to emphasise that, faced with this challenge, the desire of the Bank Group to continue its efforts on behalf of the water supply and sanitation sector, through dialogue and cooperation at both regional and international level, remains firm and forms part of the major lines of approach which it has defined as a contribution towards the achievement of the major objectives of Agenda 21, Chapter 8.

Thank you.

**Intervention du Représentant de la
Banque Africaine de Développement
Mr. M. Leke**

Messieurs et Mesdames les Ministres, Messieurs et Mesdames les Experts, Mesdames, Messieurs

Je voudrais tout d'abord présenter aux autorités des Pays-Bas, les excuses du Président de la Banque Africaine de Développement, Monsieur Babacar N'DIAYE qui, pour des raisons indépendantes de sa volonté, ne pouvait honorer de sa présence cette rencontre importante consacrée à un problème crucial pour le monde entier et en particulier pour le Continent Africain, à savoir, fournir à chaque personne, de l'eau potable et un système d'assainissement adéquat.

Le Président a cependant tenu à ce que la Banque Africaine de Développement soit représentée à la Conférence et c'est précisément la mission dont je suis chargé.

Messieurs et Mesdames les Ministres, Messieurs et Mesdames les Experts, Mesdames, Messieurs

L'accès des populations urbaines, péri-urbaines et rurales à une source sûre d'eau potable et à un système d'assainissement adéquat est une préoccupation majeure largement partagée par la Groupe de la Banque Africaine de Développement qui, par le financement de projets physiques et d'études générales et spécifiques, contribue de manière significative au développement et au renforcement de l'ensemble de ce secteur en Afrique.

A titre d'illustration, on peut noter qu'au cours des décennies 1970-1980 et 1980-1990, le Groupe de la Banque a consacré environ 12 % de ses prêts et dons au secteur de l'approvisionnement en eau et l'assainissement en Afrique, soit un montant global de 1,10 milliards de dollars des Etats-Unis. La part de ce montant affectée à l'assainissement, soit 22%, reste encore modeste et pourra connaître dans les prochaines années un niveau plus élevé à la faveur de la nouvelle stratégie adoptée par le Groupe de la Banque pour le secteur.

Ces efforts, combinés avec ceux d'autres Institutions multilatérales et bilatérales et des ONG ont permis, notamment au cours de la Décennie internationale de l'eau potable et de l'assainissement, de réaliser des progrès sensibles tant au niveau des zones urbaines et péri-urbaines qu'à celui des zones rurales. Les effets positifs

enregistrés ont été particulièrement perceptibles dans le domaine de la santé publique. Citons au passage le cas de certaines zones rurales au Burkina-Faso, au Mali, au Nigéria et au Togo où l'introduction de l'eau potable et l'éducation sanitaire ont permis de réduire d'au moins 80%, le nombre de cas d'infection de la dracunculose appelée communément le ver de Guinée.

Ces résultats sont certes encourageants, mais force est de reconnaître que le chemin qui reste à parcourir est long et périlleux au regard de la croissance démographique galopante qui est de l'ordre de 6% en moyenne en Afrique.

Le grand défi à relever est sans conteste de pouvoir fournir à des populations en croissance rapide, de l'eau potable et des systèmes d'assainissement adéquats que la Banque Africaine de Développement reconnaît comme moyens privilégiés de lutte contre le choléra, la fièvre typhoïde, la dracunculose, la paludisme, etc. En effet, il faut le rappeler, sur la quarantaine de maladies graves qui affectent la plupart des pays en voie de développement, plus de 50% ont pour vecteurs essentiels, les eaux impropres à la consommation humaine, l'insuffisance et la dégradation des systèmes d'assainissement et le manque ou l'insuffisance d'éducation sanitaire.

Messieurs et Mesdames les Ministres, Messieurs et Mesdames les experts, Mesdames, Messieurs,

Avant de terminer cette brève présentation, je voudrais souligner que face à ce défi, la volonté du Groupe de la Banque de poursuivre ses efforts en faveur du secteur de l'approvisionnement en eau et l'assainissement dans la concertation et la coopération au niveau régional et international est ferme et s'inscrit dans le cadre des grands axes d'orientation qu'il s'est fixé en vue de contribuer à la réalisation des objectifs majeurs de l'Agenda 21, chapitre 8.

Je vous remercie

**Statement given on behalf of Prof. G.O.P. Obasi
Secretary-General of the
World Meteorological Organization**

Thank you Chairman and Moderator,

I am very pleased to be able to speak for the Secretary General of WMO, and particularly to represent the hydrological and water resources interests of the organization. We have heard from a number of delegates about wells drying up, rivers becoming polluted, women having to walk miles for water. To me, and I hope to you, this represents a need for concern for water resources and for water resources assessment particularly, as a basis for the activities we have been discussing, namely drinking water supply and sanitation. But unfortunately, our capabilities for water resources assessment are declining. We are less able now, globally, to assess water resources than we were 15 years ago. The UNDP-World Bank Sub-Saharan Assessment Project reports indicate that countries in Africa have less capability now because networks have declined, staff competence has dwindled, there are no computer databanks available for the staff to use, and various other problems have arisen. A UNESCO/WMO report on the same subject indicates that this same problem exists in many countries around the world. It is paradoxical that just at the time the demand for water is rising more steeply than any other time in history, our ability to understand, and mass knowledge of the resource is declining.

Governments and external support agencies have been reducing their funding for hydrological service in particular. These services, in terms of the cost of a water project, take perhaps 0.5% of total value of any project in their activities, but we seem to be willing to invest in substantial water projects and spend a lot of money on very fragile hydrological foundations.

Now, the demand for water is rising rapidly, and probably sometime during the next century it will have doubled, and even trebled. By that time we will be using a total which is equivalent to one quarter of the flow of all the world's rivers. This is the size of the demand for water; it is also a measure of the size of the coming water crisis, a crisis which a number of people have forecast. To avoid this situation, the measures proposed by a number of the delegates must obviously be taken up. Conservation, efficiency, institutional

reform, and most properly, the adoption of a holistic approach to water, the holistic approach which was spelled out by UNCED. We cannot afford an à la carte approach, which seems to be current among thinking here. We need to take the whole menu for effective water resources management. With water resources management assessment as the hors d'oeuvre, as the starter in the menu.

To aid water resources assessment, my colleague from the World Bank mentioned that WMO, the World Bank and UNESCO have been promoting the concept of a world hydrological cycle observing system, focussing initially on Africa, where the problem is worst, and particularly on the countries that Dr. Kreisel mentioned, which are being addressed by WHO in their 2000 Initiative. Support for WHYCOS, the World Hydrological Cycle Observing System, which would gather together data on water resources in a way that is not now available to us, would be of great benefit and promise, both nationally and globally, for water and for water resources, for all the uses of water, and for everyone concerned with it. That means all of us, Madam Chairman.

Thank you.

**Statement given by Mr. Eco Matser,
The Netherlands.
representing the NGO community**

Thank you Mr. Chairman,
We would like to address ourselves to the health and environmental crises occurring around the world. This conference, and the international community, must recognize the critical links between the problems of contaminated and scarce drinking water supplies and the irreversible environmental damage that is occurring at an alarming rate.

Let's think about what that means... irreversible damage -- means that once a water resource is contaminated it is almost impossible to clean up. For many people there are no alternative sources of water and they are suffering from disease and even death. Globally, over-exploitation of land and water resources is caused by unsustainable patterns of consumption and by unsustainable activities in agriculture, forestry, industry, and the military.

For example, the Bryansk region in South-West Russia suffers from radioactive contamination due to the 1986 accident at Chernobyl. About 50% of the people in smaller villages use simple open wells that are highly contaminated with radionuclides. This water source is irreversibly polluted and is a dramatic example of the human price paid for environmental degradation.

Pesticides and chemical waste are also causing irreversible damage to drinking water supplies, fisheries, and aquatic ecosystems. The use, transport, and stockpiling of harmful chemicals are putting us all at risk. There is increasing recognition that we must stop the transport of chemical waste from northern countries to Romania, the Magreb, and Bangladesh, and many others.

The proposed action programme takes a positive step towards safeguarding water supplies and human health. Chapter 2, point 9 (c) commits countries to eliminate the use of pesticides that are proven to be harmful to humans and to implement sustainable agriculture techniques.

In truth, we must go farther and implement pollution prevention. Rather than relax drinking water standards for pesticides, such as the European Union is considering, we must work to prevent all pollution at the source. Ultimately,

prevention will be much more cost-effective and successful for protecting human health and the environment, than costly "end of the pipe" approaches.

We must take action before it is too late. We believe for the conference to be effective, that we need a focal point. All countries should take up a River Clean Up Program -- in partnership with communities -- to demonstrate innovative solutions to the problems of water supply, sanitation, pollution, and degradation of aquatic ecosystems, as well as to mobilize resources at all levels.

An example of an immediate action to be taken by the international community is to support remedies to the catastrophe of exposing hundreds of thousands of people to radioactive contamination of drinking water in Bryansk. The conclusion of an NGO in this region was:
NO WATER - NO LIFE.

**Statement by Mr. J.M. Salomao
Minister of Construction and Water
of Mozambique**

Mr. Chairman,
Your Excellencies,
Ladies and Gentlemen

In my country, Mozambique, we envisage multi-sectorial work of all government departments involved in water resources management, working with other interested parties, beyond the government and with a strong emphasis on community participation, to promote overdue changes in water supply and sanitation.

Initial work on a water resources policy paper got under way recently. We are committed to the coordination of action by government agencies, overcoming a phase of loose contacts and giving new life to a National Water Council which has been virtually dormant since its creation.

An inventory of our water resources will also be an important part of our activity in the near future. We are aware that before any good planning and design work is properly carried out, we need to know where we stand, as far as water resources are concerned. We must implement our programmes with the appropriate sense of savings of a resource which we must protect both in terms of quantity and quality.

Commenting on the draft documents before us, and without denying their value and future usefulness, I might be inclined to say that our efforts at the Conference would gain from a more focused perspective. I understand that our decisions and recommendations still have to be converted into specific action plans. Some of the programme actions enable us to move straight forward as soon as we end this conference, but others still require additional work on the draft board before we can act upon them.

International cooperation, one of the subjects dealt with in the documents, is to gain renewed attention in my country, as Mozambique, an Indian Ocean country stands to gain from bilateral or regional agreements with upstream countries that lie geographically before us along the international rivers we share in the region.

Thank you for your attention.

SESSION 4: WATER AND ASSETS - MOBILIZING THE RESOURCES

Speech by Mr. Jean-Roger Ahovo Minister of the Environment, Housing and Town Planning of the People's Republic of Benin

Minister of Housing, Planning and Environment of the Netherlands, Minister of Development Cooperation of the Netherlands, Mr. Chairman of the Conference Committee, Dear Colleagues, Ladies and Gentlemen,

It is my pleasurable duty to take the floor before such an eminent audience to express the feelings of the government and people of Benin.

However, please allow me first of all to thank most sincerely and to warmly congratulate Mr. Hans Alders, the Dutch Minister of Housing, Planning and Environment, and Mr. Jan Pronk, Dutch Minister for Development Cooperation, for having allowed my country's delegation to make our modest contribution to this Noordwijk Conference on Drinking Water and Environmental Cleansing.

Ladies and Gentlemen, bearing in mind the time allocated to me, as minister responsible for the environment I will confine myself to mentioning the main aspects of the action taken by the People's Republic of Benin since the Rio Conference of June 1992.

In August 1993 the government of Benin organised a national seminar on the follow-up strategy to the Rio conference. Dealing more specifically with the concerns of Chapter 18 of Agenda 21 regarding the implementation of a strategy to support the Water/Health/Environment relationship, my government took the following steps:

- Creation of a framework for dialogue, uniting all those active in the fields of water, sanitation and the environment, occupying a select position within NGOs and women's associations.
- Reorientation of water supply and sanitation programmes to take more account of environmental concerns.
- Formulation of new programmes geared towards interdependence between water, health and the environment.

In order to ensure cohesion within this new policy, the government of Benin has recently devised a new strategy for water supply and sanitation in rural areas, based on the National Environmental Action Plan adopted in June 1993, regarding its programmes aimed at improving the living environment in urban and rural areas.

Judged on this basis, what progress has been made? An improvement in meeting water distribution requirements is evident; whereas this increased by only 9% to 44% in rural areas during the Water Decade (1981-1990), equivalent to an average annual rate of 3.5%, distribution topped 60% in December 1993, an average annual rate of over 5%. In the same period, i.e. between 1990 and 1993, the percentage of those served by sanitation plants increased from 5% to 10%.

This relative increase can be attributed to the new policy which is based on the water/health/environment relationship.

Furthermore, the lessons learned from this Water Decade enabled the sector to redirect its overall approach. The "environmental hygiene" component of this new national strategy involves essential activities which contribute to improving the sanitary conditions of the various population groups. In this way, a water supply and sanitation programme in the central region of Benin, where 15,000 people are crippled by dracontiasis, has enabled the incidence of this disease to be reduced to 10%. Such solid progress means that the permanent elimination of this illness, also known as Guinea-worm disease, can be envisaged by 1995. At the same time, clinical visits for infantile diarrhoea have fallen considerably.

Before drawing to a close, please allow me to mention an important event which took place the day before yesterday, in this impressive hotel: I am referring to the signing of the Bilateral Agreement on Lasting Development between the Kingdom of the Netherlands and the People's Republic of Benin. This Agreement, which is the first of its kind in north-south cooperative links, will, I am sure, help to ensure continued support

for the efforts made by Benin in meeting the needs of its population in respect of water and sanitation facilities.

I should like to conclude these brief remarks by reasserting now the full support of the government of the People's Republic of Benin for the Policy Declaration, which will sanction the work of this Ministerial Conference on Drinking Water and Environmental Cleansing.

Thank you.

**Allocution de M. Jean-Roger Ahoyo,
Ministre de l'Environnement, de l'Habitat
et de l'Urbanisme de la République du Bénin**

- Monsieur le Ministre de l'Habitat, de l'Aménagement du Territoire et de l'Environnement des Pays-Bas
- Monsieur le Ministre de la Coopération au Développement des Pays-Bas
- Monsieur le Président du Présidium de la Conférence
- Chers Collègues
- Mesdames et Messieurs

C'est pour moi un agréable devoir de prendre la parole devant un parterre de personnalités pour exprimer les sentiments du gouvernement et du peuple du Bénin.

Mais permettez-moi tout d'abord de présenter mes sincères remerciements et mes chaleureuses félicitations à Monsieur Hans Alders, ministre de l'Habitat, de l'Aménagement du Territoire et de l'Environnement, et à Monsieur Jan Pronk, ministre de la Coopération au Développement, pour avoir permis à la délégation de mon pays d'apporter sa modeste contribution à cette Conférence de Noordwijk sur l'Eau Potable et l'Assainissement de l'Environnement.

Mesdames et Messieurs, tenant compte du temps qui m'est imparti, je me bornerai, en ma qualité de Ministre chargé de l'environnement à mentionner les grandes lignes des actions entreprises par la République du Bénin depuis la Conférence de Rio en juin 1992.

En Août 1993, le gouvernement du Bénin a organisé un séminaire national sur la stratégie de suivi de cette conférence de Rio. Abordant plus spécifiquement les préoccupations du chapitre 18 de l'Agenda 21 pour ce qui est de la mise en oeuvre d'une stratégie soutenant la relation Eau - Santé - Environnement, mon gouvernement a pris les dispositions suivantes:

- Création d'un cadre de concertation, regroupant tous les acteurs intervenant dans les domaines de l'eau, de l'assainissement et de l'environnement, en faisant une place de choix aux ONG et aux Associations de femmes,

- réorientation des programmes d'alimentation en eau et d'assainissement pour prendre davantage en compte les préoccupations environnementales,
- formulation de nouveaux programmes dans le sens d'une interdépendance entre l'Eau, la Santé et l'Environnement.

Afin de consacrer la cohérence de cette nouvelle politique, le gouvernement béninois vient de se doter d'une nouvelle stratégie de l'alimentation en eau et de l'Assainissement en milieu rural, qui s'appuie sur le Plan National d'Action Environnemental adopté en juin 1993, en ce qui a trait à ses programmes relatifs à l'amélioration du cadre de vie en milieux urbain et rural.

Sur cette base quels sont les progrès qui ont été enregistrés? On note une amélioration de la couverture des besoins en eau qui n'avait connu qu'un accroissement de 9% à 44% en zone rurale au cours de la Décennie de l'Eau (1981-1990), soit un taux moyen annuel de 3,5%, cette couverture est passée 60% en Décembre 1993, soit un taux moyen annuel de plus de 5%. Pour cette même période, c'est à dire entre 1990 et 1993, la couverture en ouvrages d'assainissement est passée de 5% à 10%.

Cette relative progression est à mettre sur le compte de la nouvelle politique qui s'appuie sur la relation Eau,- Santé,- Environnement.

Par ailleurs, les enseignements tirés de cette Décennie de l'Eau ont permis de réorienter l'approche globale du Secteur.

La composante "hygiène du milieu" de cette nouvelle stratégie nationale comporte des activités essentielles, qui concourent à l'amélioration des conditions sanitaires des populations.

Ainsi un programme d'alimentation en eau et d'assainissement dans la région centrale de Bénin où 15.000 personnes sont immobilisées par la dracunculose, a permis de ramener l'incidence de cette affection à 10%. Ces progrès considérables permettent d'entrevoir l'éradication définitive de cette maladie, appelée aussi le ver de Guinée, en l'an 1995. Dans le même temps, les consultations cliniques pour cause de diarrhée infantile ont nettement diminué.

Qu'il me soit permis avant de conclure d'évoquer un événement important qui s'est déroulé avant hier et ici même dans cet imposant hôtel: la signature de l'Accord bilatéral sur le Développement Durable entre le Royaume des Pays bas et la République du Bénin. Cet Accord, unique en son genre dans les relations de coopération Nord-Sud, permettra, j'en suis sûr de contribuer entre autres, à soutenir les efforts du Bénin dans la satisfaction des besoins de ses populations en eau et en équipement d'assainissement.

Je voudrais terminer ce bref propos en réaffirmant d'ores et déjà le plein soutien de Gouvernement de la République du Bénin à la Déclaration Politique qui sanctionnera les travaux de cette Conférence Ministérielle sur l'Eau Potable et l'Assainissement de l'Environnement.

Je vous remercie.

**Speech by Mr. M. Sifi
Algerian Infrastructure Minister**

We have the opportunity of debating a crucial world problem in the particularly pleasant setting of Noordwijk. Tomorrow, this location will lend its name to the political declaration of this conference which will from then on be known as the "Noordwijk Declaration".

In years to come, at another conference, attempts will be made to assess this declaration and the declaration made by the World Summit held two years ago in Rio de Janeiro. In the same way, attempts were made then to evaluate the international Decade of Drinking Water and Sanitation.

Within the context of raising our own level of awareness regarding the specific implementation of our own decisions in the field, it is important that we give ourselves the means of ensuring that our policy is feasible, in other words the means of implementing yesterday's declaration.

As far as developing countries are concerned, while they can generally achieve the desired and expected reforms on their own at institutional and organisational level and subject to successive government decisions, the same cannot be said of their grasp of technology, management and financial resources, where sustained cooperation is needed from countries which possess such resources, particularly since this aspect is one of the essential conditions for the success of the recommended reforms.

It is therefore important to encourage cooperation with developing countries so as to enable them to create the knowledge pools and to train experts, as well as to develop the human resources needed to create a reservoir which can organise and manage the local distribution and maintenance services for drinking water and sanitation networks.

As far as my own country is concerned, at the end of the international decade of drinking water and sanitation, the following results had been achieved:

- Drinking water production increased by an average of 6% per annum between 1962 and 1990;
- Almost the entire urban and rural population has access to drinking water and the

sanitation network;

However, citizens are not receiving a quality service in terms of drinking water supply, while the dumping of untreated waste water downstream from sanitation networks is increasing pollution in the receiving areas.

This is why, within the framework of the global economic reforms undertaken by Algeria, my ministry is currently implementing a programme designed to correct these anomalies which involves realistic pricing, with the collaboration of the World Bank, based on overlapping subsidies which are fair to the poorest, the rationalisation of water consumption, the development of sanitation systems which make the polluter pay and an instrument for educating the population about the conservation and preservation of water resources.

This joint programme with the World Bank covers the human resources strand but Algeria, in order to guarantee the success of its reforms, still requires bilateral and multilateral cooperation in the field of expertise if it is to come to terms with the technology and the management issues.

**Allocation de Monsieur M. Sifi
Ministre de l'Équipement
Algerie**

Nous avons l'occasion de débattre d'un problème mondial vital dans le cadre fort agréable de Noordwijk qui donnera, demain, son nom à la déclaration politique de cette conférence qui s'appellera désormais "la déclaration de Noordwijk".

Dans les années à venir, à l'occasion d'une autre conférence, on tentera de faire le bilan de cette déclaration ainsi que de celle du sommet de la Terre, tenue il y'a déjà deux ans à Rio de Janeiro, comme on a tenté de faire le bilan de la decade internationale de l'eau potable et de l'assainissement.

Dans cette perspective de nous rendre compte à nous mêmes de la mise en oeuvre concrète sur le terrain de nos propres décisions il nous importe de nous donner les moyens de notre politique pour assurer sa faisabilité, c'est à dire les moyens de la mise en oeuvre de notre declaration de demain.

En ce qui concerne les pays en développement, si au plan institutionnel et organisationnel, les réformes souhaitées et attendues sont relativement réalisables par eux mêmes, moyennant des décisions gouvernementales, même progressives dans le temps, il n'en est pas de même au plan de la maîtrise de la technologie et du management et de moyens financiers où ils attendent une coopération soutenue des pays qui en disposent, surtout que cet aspect constitue une condition sine qua none du succès des réformes recommandées.

Il importe donc que soit encouragée la coopération en direction des pays en developpement pour leur permettre de créer les bases des connaissances et de former des experts et de développer les ressources humaines pour constituer un reservoir capable d'organiser et de gérer au niveau local des services de distribution et d'entretien des reseaux d'eau potable et d'assainissement.

En ce qui le concerne, mon pays enregistre à la fin de la decade internationale de l'eau potable et de l'assainissement les résultats suivants:

- La production d'eau potable a enregistré une croissance annuelle moyenne de 6 % entre 1962 et 1990.
- La quasi-totalité de populations urbaines et rurales ont accès à l'eau potable et au réseau d'assainissement.
- Cependant, le citoyen ne bénéficie pas d'un service de qualité en matière d'alimentation en eau potable et les rejets d'eaux usées non épurées à l'aval des réseaux d'assainissement aggravent les pollutions des milieux récepteurs.

C'est pour cela qu'actuellement, dans le cadre des réformes économiques globales entreprises par l'Algerie, mon département ministériel engage avec la collaboration de la Banque Mondiale, la mise en oeuvre d'un programme de correction de ces distortions qui comprend, entr'autres, une tarification réaliste mettant en jeu de subventions croisées ménageant les plus pauvres, la rationalisation de la consommation d'eau, le developpement des systèmes d'épuration en faisant payer le pollueur et un dispositif educationnel de la population pour la conservation et la préservation des ressources en eau.

Ce programme avec la Banque Mondiale prend en charge le volet ressources humaines, mais, l'Algerie, pour garantir le succès de ses réformes, reste demandeur de coopération bilatérale et multilatérale dans le domaine de l'expertise pour maîtriser la technologie et le Management.

**Statement given by Mr. R. Arroyo Marroquin
Subdirector of the National Water Commission
Mexico**

Thank you.

We believe that what is most important to achieve good social mobilization and to obtain the financial resources that are needed, is to clearly indicate the objectives of our programmes. In Mexico we proposed three basic objectives. The first was to reduce the deficit and at the same time increase the coverage of the services; secondly, to improve the adequate use, on the part of all users; and thirdly, to improve the quality of our rivers and our underground waters.

Based on the principle that we needed to change our approach, we had to change the institutional framework, formulate precise programmes with clear responsibilities, and support them with a large array of financial instruments. The programme started in 1990. In 1992 a new law was passed which amongst other things supports a new water culture. It requires an adequate role by the state, and clear orientations for administration and management of water. Among other things, it clearly states the objective of reaching sustainable development and establishes the principle of integral management among the different watersheds as administrative units. There is a commission that has been established for water resources, which establishes the relationships that have to exist between the government and the different instruments, economic and otherwise, for the management of water. Water is considered as an economic good, and whoever uses it or pollutes it has to pay for that use or pollution.

We realize we have to further develop all these different systems, and we have indicated the interest we have in having private finance participate in the infrastructures and contribute to the financing of these systems. The participation of the water utilities and the financial support that was given through the financial programme, were provided under the condition that each of the systems used in the different municipalities and cities should be completely isolated from a financial point of view, from local government. Today, more than 200 organizations work in the different cities. They have integrated themselves in the system and in more than 90% of the cases

they are self-sufficient from a financial point of view.

They have almost tripled their resources, which has basically been done by controlling the loss of water, since the price of water has almost remained the same. Today 86% of the population receives water in their homes, and 95% of that water is healthy water, which therefore reduces the incidence of illness in infant population by 25%. The sanitation services have also provided coverage to 12 million more inhabitants. Our efforts to preserve our resources and to protect the environment is something that can also be seen in what we have done to try and control waste waters. We now have three times more capacity than four years ago, and in three years time, the capacity to treat municipal waste waters will have increased five-fold. In five more years, we will be able to treat a volume of approximately 130 cubic metres per second.

The financial system has been based on a combination of public expenses, and resources coming from other sectors of the Mexican economy. Subsidies are given depending on the economic situation of the different populations. In the delivery of drinkable water, most of the resources that are given are for sanitation, for populations of more than 80,000. Most of the investments are carried out with the participation of the private sector. Financing in the programme, which has been approximately 5 billion dollars in the last five years, has come, in 80% of the cases, from own resources, either public or private; and 20% has come from international organizations through credits. This, however, has been limited, while it is very important in order to guarantee the continuity of our programmes. We have also learned that to obtain the resources is very important, and this implies having to overcome a series of obstacles. It is more important, however, to spend well and to spend correctly, and the possibility of spending correctly increases if the principles mentioned on several occasions in this meeting are applied.

Decisions must be taken at the lowest level of government, in other words, at the level which is closest to the community it serves.

The planification of strategies has to be done from an integral point of view. When we try to improve water quality in the cities without considering what effect this might have on agriculture, we would probably be spending much more money that would be necessary.

Mr. Chairman, we are very satisfied at having participated in this forum. First because of its political characteristics, because we believe that it is at this level and in this kind of forum, that we should actually indicate and commit the efforts of each country and of the international community, in order to solve problems which are very socially important. Secondly, because we believe that the principles mentioned here of sustainability, conservation, equity, organization of the community, and international cooperation have enabled us to progress enormously. Therefore we subscribe fully to what we find in the Political Statement and in the Action Programme and we hope that all over the world, for all humanity, the objectives that have been proposed will be reached before the expected deadlines.

Thank you.

Speech on behalf of the Minister for the Environment the Slovak Republic

Speaking on behalf of the Minister of the Environment of the Slovak Republic, who very much regrets not being here. Drinking water and environmental sanitation, sustainable management of water resources, became, as it was stressed many times here, a serious problem worldwide. The challenge coming out of the Rio Summit calls for adequate response and immediate action. Also the countries with economies in transition should orient their effort to better and more sustainable water use.

Slovakia is a country of more than 5 million inhabitants in an area of 49,000 km², which in the 20th century has been characterized by extensive socio-economic and political changes unfavourably impacting the environment.

During the last four decades the number of people supplied with drinking water from public water systems has been growing faster than the development of water resources. The development of public sewerage systems lags significantly behind the development of public water supplies.

The biggest task facing the Slovak Republic is the decentralization of water management. The Slovak Republic must transfer water management companies and utilities from the government to the municipalities. Not only must we do this, but we must do it reasonably realistically and effectively. The process will include the transfer of assets, responsibilities of operation, maintenance and investments.

With regards to the post Rio Summit process, implementation of Agenda 21 has already started in the Slovak Republic. **"An adequate supply of drinking water and reduction of water pollution to acceptable levels"** is one of the highest priorities of our National Environmental Policy. And we have translated this goal into concrete short, medium and long-term steps.

The Ministry of Environment and other ministries are developing the national Environmental Action Plan of the Slovak Republic. This process includes:

- * assessing and reviewing goals of the National Environmental Policy;
- * establishing a "financial" environment for win-win projects, and;
- * identifying and preparing

environmentally friendly projects.

This conference should promote better collaboration on a political level. It should introduce better and more effective global financial cooperation. And it should focus our effort to more intensive action-oriented measures. I can simplify the position of the Slovak Republic somewhere "in the middle". What does this mean? In reality, the Slovak Republic, as well as other Central European Countries, has achieved a certain level of drinking water supply and sanitation. The main obstacle for further environmental development in this area is not a shortage of freshwater, but the state of our economies in transition. To sustain development we need to restore the global economy. To reach this goal we must mobilize financial resources, both domestic and international. It is impossible to fulfill this aim without international cooperation.

As a practical result of this conference we believe in developing concrete, target-oriented steps for international and domestic collaboration at all levels.

Finally, Mr. Chairman, let me express the view of my delegation on the documents elaborated by the Senior Officials Meetings for this conference with respect to the transfer of assets to the drinking water and sanitation sector. I would like to emphasize that the guidance given by the Action Programme in the area of the changing role of governments, strengthening the capability of the communities should also include the establishing of adequate mechanisms for financing on appropriate levels. Mr. Chairman, last but not least, let me express the thanks of the Slovak Government to the Dutch Government, especially to Minister Alders, for the possibility to attend this very important conference as a practical step in the process of implementation of Agenda 21 in the area of drinking water and environmental sanitation.

Thank you Mr. Chairman.

**Statement given Mr. Jorge E. Lorini Saenz
Minister for Urban Health
Bolivia**

Mr. Chairman,

On the occasion of this world conference I wish to refer specifically to the common aspects shared by the policies and the measures that have been proposed on this occasion, and the measures that have been applied in our country. The last governmental efforts in Bolivia have produced change, and they give priority to social aspects and the quality of life of the population. The government's most important objective is the reform of its policies, which are based on the improvement of the quality of life through better health and education. We have initiated a new phase by passing the Popular Participation Law, where territorial, grassroots organizations are used as the most important actors in the development measures. They are the ones who indicate what their priorities and needs are as far as infrastructure is concerned: education, health, and urban development.

Bolivia, which has a very complex geographical structure, with mountains which are over 4000 metres high and other geographical accents, has quite a few water resources. Different technologies are used in order to provide drinking water to the different populations. In this context, the National Drinking Water and Sanitation Programme, which started two years ago, includes the following elements:

- improvement of the quantity and quality of the services in rural and peri-urban areas;
- strengthening of the institutional capacity of the service companies;
- improvement of community participation when decisions have to be taken in order to set the priorities of the projects (some of the principle actors in that respect are women);
- the use of appropriate technologies;
- rationalization in the use of financial resources;
- capacity-building of human resources; and
- establishment of an adequate contact point which will allow us to monitor the sector and have an adequate orientation in the use of national resources and the use of international cooperation.

Within the use of the different funds available, there is a political principle that is applied, in which everyone has to contribute based on their economic capacity. In this way they guarantee the sustainability of the system. A Ministry for Sustainable Development and the Environment has been created, and it is that ministry which is applying the government policies.

To finish, Mr. Chairman, I would like to say that after having listened to different speeches I have realized that many less-developed or developing countries share similar problems. As a consequence of everything that has been said I think it is necessary for us to exchange experiences, in order to help each other.

Thank you very much.

MOBILISING THE RESOURCES
presented by Mrs. Deborah Moore, UNITED STATES
representing the NGO community

Thank you Mr. Chairman, distinguished delegates,

I am Deborah Moore with the Environmental Defense Fund, an NGO from the U.S. The NGOs here would like to address the past and present "UNsustainability" of financing in the water sector, with the hope that the conference delegates will design mechanisms for financing that ARE sustainable in the future. There is a lot of waste -- in terms of waste of water, waste of money, and waste of human resources -- and we need to find ways of reducing such waste.

We were very interested in the information Mr. Serageldin from the World Bank presented yesterday. He cited the incredible dichotomy that exists -- the "unserved" poor pay 10 to 20 times more than the rich, who receive the bulk of public subsidies. When it comes time to finance water projects for poor communities, the public coffers are dry.

We are thankful for the increasing recognition given to the fact that the poor have not had access to public and private financing assistance, in addition to the lack of access to water. So, we may ask then, why aren't the financing institutions changing their investment and political approaches?

Mr. Serageldin failed to cite some of the other alarming trends in water sector financing, which might help to answer that question. For example, 44% of World Bank-financed irrigation projects reviewed in 1989 had economic rates of return below 5%. In addition to subsidizing the rich, some large-scale dam projects contribute to increasing developing countries' debts, such as the \$1 billion Chixoy Dam in Guatemala which represented 40% of the country's external debt. In the past, social and environmental costs of water projects, particularly dams, have not been taken into account, resulting in the displacement of millions of mostly poor and tribal people and the degradation of rivers and fisheries. Lastly, pressure from donor countries to win procurement contracts on large, internationally-financed projects has resulted in foreign assistance being channeled directly back to the donor countries. This contributes to empowering large companies rather than building capacities in

local communities. CLEARLY, THE FINANCIAL SITUATION IS NOT SUSTAINABLE.

The World Bank took a positive step forward by developing a water policy in 1993, and is now financing some "new agenda" style projects, such as the Orangi Project in Pakistan and the one just mentioned by Algeria. However, the majority of the Bank's water portfolio continues to be directed towards conventional projects. We have hope that this new policy will facilitate change on the ground and in other international financial institutions.

In addition to needed changes in the allocation of scarce public funds, there are clear needs to develop other self-sustaining and cost-effective financing mechanisms. There ARE resources to be mobilized at all levels, and the poor are willing to pay given the prices they already pay now. Current pricing mechanisms, when they exist, are REGRESSIVE. What we need to implement is a pricing system that is PROGRESSIVE, both in terms of income and consumption levels.

Communities also require access to credit in amounts they can manage. While it may be difficult for individual communities to absorb the large sums of capital traditionally mobilized at national and international levels for infrastructure projects, there IS a WIDESPREAD capacity to absorb appropriate amounts of assistance at the local level. What is needed are new lending and investment mechanisms that are sensitive to community needs and abilities. NGOs can serve as "social brokers" to provide administrative services and training to grassroots organizations.

Lastly, it is clear that the CHOICE of APPROACH -- both hardware and software -- effects the financing needs. As has been recognized by the delegates of this conference, many low-cost technologies have been under-supported in the past. Also, the user must be more directly involved in making these choices. In the future, there should be more of a balance between capital-intensive infrastructure projects and the range of "appropriate technologies." In addition, investments should increase for "preventive approaches" like preventing pollution

at the source and conserving and re-using existing water supplies.

So, Mr. Chairman, we are encouraged by the discussion of financing issues we have heard here.

The challenge, as always, is to implement the changes outlined in the Action Programme. We will need both more and better managed financial resources at all levels -- whether from the GEF, the External Support Agencies, national governments or local communities. We will be working to hold you to these commitments and look forward to seeing concrete changes and greater balance in the types of investments made for water, health, and environment.

Thank you very much.

**Summary of the Statement on behalf of Mr. Isa Mohammed,
Minister of Water Resources and Rural Development
Nigeria**

Mr. Chairman,
Honourable Ministers,
Distinguished invitees,
Ladies and Gentlemen,

I bring with me the greetings and goodwill of the people of Nigeria to you on the occasion of the Ministerial Conference on Drinking Water Supply and Environmental Sanitation, the first of such Ministerial Conference, I understand, since the great event of the Earth Summit in Rio de Janeiro in June 1992.

Since our time for country statements is short, permit me to get straight to the point.

Nigeria is a developing country with about 90 million people, which recognized the need to tackle the problem of safe water supply and sanitation of its people on a continuous basis in order to meet the needs of universal coverage as soon as possible. In view of the basic nature of water supply, it is put in the concurrent list of responsibilities at the Federal, State and Local Government levels. The actual provision of water supply and sanitation facilities are the responsibilities of the State and Local Government, with the States being in charge of water supply and sanitation to urban and semi-urban areas, while local governments are to take charge of provisions to the rural areas. The Federal Government plays a regulatory role through policy formulation and guidelines, monitoring of sector performance, occasional intervention in critical situations, coordination and guaranteeing of external funding, among other things. The Federal Government maintains these regulatory roles through the Department of Water Supply and Quality Control of my Ministry, the Federal Ministry of Water Supply and Rural Development. On policy decisions in water supply and sanitation, the National Council on Water Resources, made up of State Commissioners in charge of water resources matters, with the Minister of Water Resources as chairman, is the highest policy making body.

Through the brief background given above, Nigeria had set up and implemented a number of programmes in its bid to develop the water supply and sanitation sector. It would suffice in this address to name the following:

i The National Borehole Programme which was started in 1981 as a process towards meeting the goals of the IDWSSD, but which

had to be discontinued due to financial constraints, after the construction 1000 of mini-water schemes for the rural areas.

- ii The Directorate for Foods, Roads and Rural Infrastructure (DFRRI), through which 19,000 communities have been given water supply between 1986 and 1992.
- iii The National Water Supply Rehabilitation Project in which selected urban and semi-urban water supply schemes in all states of the Federation are being rehabilitated through a World Bank loan of US 256 million.
- iv Nigerian Guinea Worm Eradication Programme (NIGEP), through which, with the assistance of Global 2000, the Federal Ministry of Health and Human Services (FMHHS) has been working tirelessly to eradicate guinea worm by 1995.
- v The National WSS Monitoring Programmes started in 1991 with the assistance of UNICEF, through which the performance of the sector is being monitored on a continuous basis.
- vi The Reference and Regional Water Quality Laboratories Project, which is presently constructing 2 reference/research laboratories and 4 regional laboratories to monitor water quality nation wide. The programme aspect of this project should set up water quality network points, in strategic locations in the country, for water quality monitoring purposes.
- vii Local Manufacture of Water Supply Treatment Chemicals and Devices Programme through which Nigeria has established the Local manufacturing base for two handpumps and is in the process of doing the same for the production of lime, for water treatment purposes.
- viii The Rural Water Supply and Sanitation Strategy and Action Plan, which sets out the modalities for handling the development of water supply and sanitation nation wide.

Mr Chairman, Ladies and Gentlemen, we have tried within our means to tackle the problems of supplying our people safe water and sanitation. It is apparent that internal sources alone would not be enough, and we commend all ESAs and governments that have come to our assistance this far.

In this context, we commend the government of The Netherlands for putting together this conference. From reports we have received from our participants in the International Steering Committee (ISC) and the Senior Civil Servants' Meeting, there have been genuine efforts to come up with workable programmes for action by all countries. We are encouraged by this and look forward with great hope to working with you to achieve viable options for providing safe drinking water and sanitary means of disposal of human waste to our people, and also seeking the necessary financial backing to bring this about in the shortest possible time.

Thank you.

**Statement on behalf of Mr. J. Grant
Executive Director of Unicef**

**CHILDREN, ENVIRONMENT AND
SUSTAINABLE DEVELOPMENT:
UNICEF RESPONSE TO AGENDA 21**

UNICEF places special emphasis on the concept that "our planet must be preserved in order to nurture our children; equally, our children must be better nurtured to preserve our planet".

To this effect, UNICEF advocates "primary environmental care" (PEC), a community-based approach to meet basic needs through the empowerment of local communities, while ensuring the protection and optimal utilization of natural resources within the community. Priority should be given to the most vulnerable - especially children, women and the very poor - who are threatened by drought and desertification, urban poverty and the destruction of tropical forests and fragile mountain ecosystems. Environmental education should be promoted to encourage the active participation of women and children, to enhance their life skills and adaptability and to enable them to attain a sustainable livelihood. Attention is also needed in building partnerships among government agencies, non-governmental organizations, research institutions and local communities.

The mutually reinforcing, inextricably related relationships of Poverty, Population growth and Environmental deterioration represent the biggest threat to satisfying the pledges to our children and our earth. These three problems (termed PPE) form a downward spiral in which population growth fuels poverty and environmental deterioration; poverty stimulates population growth and more environmental damage; and poor environment reinforces poverty and population growth.

All sectors will need to be made aware of and mobilised to reverse the PPE spiral particularly through investments in health, education and family planning. The Water and Environmental Sanitation (WES) sector's contribution can already be seen in plans, strategies and ongoing activities which alleviate stresses on the environment, provide services to the poor, improve health, nutrition, the status of women, and school facilities, generate sustainable incomes and contribute to a better understanding of environmental issues. These in turn will go a

long way to, among other things, keep children in school and make family planning more acceptable.

To achieve this objective "Mid-Decade Goals" (MDGs) have been set for 1995 to secure further commitment, monitor progress and encourage continued efforts up to and beyond the year 2000. The WES sector's priority is to "narrow the gap between 1990 levels and universal access by the year 2000 of water supply by one-fourth and of sanitation by one-tenth". But additionally, WES will be instrumental in achieving MDGs to eliminate neonatal tetanus, eliminate polio in selected countries, boost the proper use of oral rehydration therapy and eradicate guinea worm disease.

The UNICEF WES sector also contributes financially to the achievement of both the World Summit for Children (WSC) and the Earth Summit goals. More importantly, in recent years UNICEF's assistance to children and their families in emergencies (armed conflict and natural disasters) has risen dramatically. In 1992 emergency expenditures reached twenty-two percent, of which the water and sanitation component was an important part. In 1994 the WES component already comprises a total twenty-one percent of appeal amounts in twelve emergency countries.

In 1993 UNICEF expended globally approximately US \$130 million in support of government and NGO WES programmes. Of this amount approximately 20 percent was expended on hygiene education and environmental sanitation promotion and the remainder was expended on water supplies and capacity building both at national and community level for enhanced sector planning, management and operation and maintenance services.

UNICEF assistance is provided almost entirely to areas that are unserved and do not qualify as "bankable" projects. In 1992 UNICEF cooperated in 127 countries: 44 in Sub-Saharan Africa; 34 in Asia; 35 in Latin America; and 14 in the Middle East and North Africa.

UNICEF emphasizes partnership. UNICEF collaborates with a broad range of partners. For example, UNICEF cooperates closely with

governments and counterparts who are concerned with the broader interrelationships between drinking water, sanitation, education, health, nutrition, irrigation water, etc. UNICEF also participates in the Cooperative Action for universal coverage of Drinking Water Supply and Sanitation together with WHO, World Bank, UNDP, Habitat activities of UNCTD, and other organizations. UNICEF strongly urges cooperation between other UN agencies, multi- and bilateral organizations as well as NGO's.

UNICEF fully supports and participates in the Collaborative Council and helps to implement its recommendations in the field. Examples are Joint Monitoring Programmes with WHO, IEC and behavioural changes programmes with IRC and country level collaboration with WB/UNDP and other bilateral partners.

UNICEF urges upon all the like minded partners to promote the concept of PEC as follow up of both the "promise to children" and the "promises to the Earth".

Statement given by the delegate from Chile

Mr. Chairman,

I wish to mention three basic aspects of the development of the water sector in Chile. First, the effort towards adequate coverage, which tries to cover 100% of the population; second, an institutionalization of the sanitation sector; and, thirdly, on the part of the state there have been great efforts towards social development. Chile has 13 million inhabitants, of which 10.5 million live in urban areas, and 2.5 million in rural areas. Of those in rural areas, 2 million inhabitants live in concentrated areas.

As regards drinking water coverage and sewage systems in urban areas, Chile has a coverage of 97% for drinking water, with house connections, and 87% coverage for sewage systems. There is also coverage of 50% for residual or waste water treatment. Waste waters is something I would like to insist upon, because we have a large deficit, both in rural and urban areas.

Chile has developed a programme for drinking water in rural areas. Today we have a coverage of 35-40%, with systems that are connected directly to the different homes. We recognize that a large effort has to be made in the next few years in rural areas, and consider that to be our most important commitment to poor populations in the health sector.

Let us consider what the eighties were like in Chile. Chile invested approximately US\$ 39 million per year in the sanitation sector. In the last three years, Chile has invested approximately US\$ 150 million, and in 1993 we arrived at an investment of US\$ 170 million. We hope to be able to increase this level of investment in the next few years by adding private sector contributions. We have estimated that for the urban areas, in order to cover 100% of the population with drinking water and 95% or more with sewage coverage, we require approximately US\$ 500 million. As regards waste water treatment, if we want to arrive at a coverage of 70% or more, and in order to treat industrial waste as well, we would need to invest over US\$ 1 billion. For the rural sector we hope to make investments of around US\$ 200 million in order to be able to serve 100% of concentrations in rural areas with drinking water, and to greatly increase the sanitation efforts in those areas as well.

Another important element for us is the institutionalization of this sector, which has been carried out in Chile. It has been based on three aspects. The first is a tariff system which has been consolidated, where we have been able to get our population to understand that drinking water is a product, and as such is an economic good which must be paid for. But together with this, we have implemented a subsidy system which is basically aimed at those families that have very few financial resources. In the process prior to 1990, the subsidies that were used did not identify the economic resources of the different families, so they were quite general in nature. This, of course, favored the sectors which had the greatest income, and gave less protection to lower income sectors. Nowadays our efforts are more specified, which allows us to cover demand for approximately 70% of the consumption of all our customers who have low resource levels.

The third aspect within institutionalization of the sector, is everything which has to do with control measures by the state. We have realized that the extent to which the state intervenes by fixing prices, by applying legislation, and by fixing precisely what the objectives of the sector are, tends to reduce the importance of the problems related to intervention of the private sector. For us it is important to discuss whether the private sector is going to participate or not, but only in those cases where the government does not have sufficient resources to make the necessary investments.

I would like to indicate the social effects that have been caused by the government. Prior to 1990 the average consumption in Chile was superior to 30 cubic metres. After having applied the tariff structure, in 80% of the population the consumption is less than 20 cubic metres, and the average consumption is 18 cubic metres.

I wish to finish my speech by indicating that the extent to which the government stops investing unneeded resources in the sanitation sector, will help us carry out activities in the social sector, which are very much needed as well. For example, primary care and education. Finally, we would like to offer the Chilean experience, if countries were ever to need that experience. We also require greater technological support. We need that experience and support as regards treatment of waste water. Thank you very much.

**Statement by Mr. B.T. Paré
Secretary-General of the Ministry for Water
from Burkina Faso**

Mr. Chairman,

It is a great honour for my delegation to be taking the floor at this forum to express, on behalf of the authorities in my country, our solidarity with all the other delegations present and with the international community for their untiring efforts to find ways of providing all the peoples of the world with fair and lasting access to clean water and good sanitation.

Burkina Faso is a small landlocked country located in the heart of western Africa, in the Sudanese Sahelian zone. It has a surface area of approximately 274,000 km² and a population of 9 million.

The country's water resources are extremely limited and water is very expensive to supply to the rural, urban and suburban populations.

Mr. Chairman,

I do not wish to say any more about the drinking water problems of Burkina Faso, since most of the delegates followed the excellent presentation given on this subject during the splendid ceremony presided over by Minister ALDERS on Monday 21 March of this year in Rotterdam. During the ceremony the first prize for 1993 of the "Dutch Award on Environment and Development" was presented to the IWACO consultancy for their project on "Water Management and Environmental Aid in Burkina Faso".

The difficulties of mobilising and managing water resources in my country have reached such proportions that the government has decided to put the water issue at the top of its list of priorities.

For several years, therefore, the water sector has taken pride of place in terms of the allocation of financial resources within the successive development programmes launched by the government, with investments generally varying around 25% of the overall volume of investment made in national development programmes.

The majority of these financial resources is made up of external aid. However, it is worth noting

the remarkable rise in the State's contribution to financing development projects in recent years.

In fact, while the State's contribution to the development of this sector barely exceeded 5% during the first international decade of Drinking Water and Sanitation, 1981-1990, this contribution is rising sharply for the period 1991-1995 and is now between 15 and 20%.

You will agree with me that Burkina Faso, in its current economic situation, in common with other countries of the world with a weak economy, must continue to benefit from solidarity with the international community to solve the delicate problem of drinking water and sanitation. It should also be pointed out that, in addition to these development policy measures ordained by the government, the beneficiaries have made a not inconsiderable contribution to the creation of drinking water production facilities and a sanitation infrastructure.

In this way, the rural beneficiaries are contributing through human investment and by providing working capital for the creation and maintenance of watering places. In 1992 the government adopted a pricing policy for water distribution in urban and suburban zones, which translated into more sustained effort from consumers (10% annual price rise); the objective of this is to guarantee the national water distribution board the essential financial stability it needs in order to survive and to develop its activities to benefit those most in need.

Mr Chairman,

The sanitation sector in Burkina Faso faces major problems in terms of mobilisation of funds. Programmes in this sector have not proved very attractive to sponsors. However, since 1991 the government has been able to start preparations for a Strategic Plan for the Sanitation of Liquid and Solid Waste for the town of Ougadougou, the capital of Burkina Faso, with support from the PNUD and the GREA (Regional Drinking Water and Sanitation Group - an agency of the World Bank). This Strategic Plan, which is already arousing much interest among our development partners, will soon be approved.

In order to support the implementation of this

Plan, the government set up a National Sanitation Fund (FONAS) in December 1993. This Fund receives various contributions, mainly from taxes on sanitation services which are indexed to water consumption bills.

Finally, Mr. Chairman, I would like to express our support for the draft action programme submitted to our conference, and to wish our work much success.

Thank you.

Communication de M. B.T. Paré
Secrétaire-Général de la Ministère de l'Eau
Burkina Faso

Monsieur le Président,

C'est un grand honneur pour ma délégation de prendre la parole à ce forum afin d'exprimer au nom des autorités de mon pays notre solidarité avec l'ensemble des autres délégations ici présente et avec la communauté internationale pour les efforts inlassables déployés dans la recherche permanente de solutions à un accès équitable et durable, de toutes les populations du monde entier, à une eau saine et à un assainissement approprié.

Le Burkina Faso, est un petit pays situé en coeur de l'Afrique occidentale, dans la zone soudano-sahélienne sans littoral. Sa superficie est d'environ 274.000 km² et est peuplé de 9 millions d'habitants.

Les ressources en eau sont très limitées et d'exploitations très coûteuses pour l'approvisionnement en eau des populations tant rurales, urbaines que péri-urbaines.

Monsieur le Président,

Je ne voudrais pas l'avantage parler de la problématique de l'eau potable au Burkina Faso, car la plupart des délégués ont suivi le brillant exposé fait sur ce cas à l'occasion de la sympathique cérémonie sous l'égide de Monsieur le Ministre ALDERS le lundi 21 mars dernier à Rotterdam, cérémonie au cours de laquelle le premier prix de l'édition 1993 de la "Dutch Award on Environment and Development" a été décerné au Bureau d'Etudes IWACO pour le projet "Assistance à la Gestion de l'Eau et de l'Environnement au Burkina Faso".

Les difficultés de mobilisation et de gestion des ressources en eau dans mon pays ont pris des proportions telles que le Gouvernement a décidé de placer la question de l'eau au premier plan de ses priorités.

Ainsi, depuis plusieurs années, le secteur de l'eau occupe la première place au plan de l'allocation des ressources financières dans les programmes de développement successifs mis en place par le gouvernement; les proportions varient autour de 25% du volume global des investissements

retenus dans les programmes nationaux de développement.

La part la plus importante de ces ressources financières sont constituées d'aides extérieures. Cependant il y a lieu de noter la progression remarquable de la contribution de l'Etat aux financements des projets de développement pendant ces dernières années.

En effet, si au cours de la première décennie internationale de l'Eau potable et de l'Assainissement 1981-1990, la contribution de l'Etat au développement de ce secteur n'a guère dépassé 5%, cette contribution est en nette augmentation pour la période 1991-1995 et se situe entre 15 et 20%.

Vous conviendrez avec moi que, la Burkina Faso dans sa situation économique actuelle et comme les autres pays du globe à l'économie faible doit continuer de bénéficier de la solidarité de la communauté internationale pour résoudre le délicat problème de l'eau potable et de l'assainissement.

Il conviendrait d'ajouter à ces mesures de politique de développement arrêtées par le Gouvernement, la contribution non négligeable des bénéficiaires à la réalisation des ouvrages de production d'eau potable et des infrastructures d'assainissement.

Ainsi, les populations bénéficiaires en milieu rural contribuent sous forme d'investissement humain et par la mise en place de fond de roulement à la création et à la survie des points d'eau.

Pour les zones urbaines et péri-urbaines, le gouvernement a adopté en 1992 une politique tarifaire pour la distribution d'eau, qui se traduit par un effort plus soutenu des consommateurs (hausse des prix de 10% par an) et dont l'objectif est de garantir à la Société nationale de distribution d'eau un équilibre financier indispensable à sa survie et au développement de ses activités au profit des plus déshérités.

Monsieur le Président,

Le secteur de l'Assainissement au Burkina Faso connaît des problèmes plus importants sur le plan de la mobilisation des ressources financières. Les

programmes dans ce secteur n'ont pas connu beaucoup d'attrait du côté des bailleurs de fond. Cependant, depuis 1991, le Gouvernement a pu mettre en chantier avec l'appui du PNUD et du Groupe Regional de l'Eau Potable et de l'Assainissement (GREA) (une agence de la Banque Mondiale) l'élaboration d'un Plan Stratégique d'Assainissement des eaux usées et excréta pour la ville de Ouagadougou, capitale du Burkina Faso.

Ce Plan Stratégique qui suscite déjà un grand intérêt de la part de nos partenaires au développement sera bientôt adopté.

Pour soutenir la mise en oeuvre de ce Plan le Gouvernement a créé en Décembre 1993, un Fonds National pour l'Assainissement (FONAS). Ce Fonds est alimenté de contributions diverses dont principalement de taxes pour services rendus assainissement et qui sont indexées sur les factures de consommations d'eau.

Enfin, je voudrais, Monsieur le Président, exprimer notre soutien au projet de programme d'action soumis à notre conférence et souhaite plein succès à nos travaux.

Je vous remercie.

**Statement given by Ms. Alicia Barcena
Executive Director
Earth Council**

Mr. Chairman,

Allow me to make some reference to the contributions we have heard here today. It is very interesting to note that in this session on mobilizing resources and water assets, we have heard mainly developing countries and countries in transition, and they have referred to their political will to transform and to reorient the policies of the state to proceed to policy reform. This shows the willingness of these countries to start in a very proper way, to analyze their legal, fiscal and economic policies within the national context.

All the delegations here have coincided in their approach of integrating these concepts of policy reform and fiscal reform, which are necessary steps to get more access to technological and financial means. The other point that was referred to here is the combination of private and public resources, and how the privatization of certain aspects of the provision of services and the infrastructure have gradually taken place in many of the countries that have taken the floor today. Another noteworthy aspect of this integrated approach has been the concept of decentralization - the decentralization policies towards local communities, not only on policies and instruments, but also on how to involve the private sector to a greater degree, were specifically mentioned by some of the delegates, particularly Mexico and Bolivia. Some of the delegates also referred to the importance of not only integrating drinking water and sanitation, but also linking this to agriculture in the sense of reusing and recycling some of this water into other sectors.

Delegations like Algeria reminded us very carefully that there is a need to ensure resources for the implementation of the Action Programme that will be agreed here, and Agenda 21. A very interesting example of how the mobilization of resources can happen is the bilateral agreements signed by the Netherlands, Benin, Bhutan and Costa Rica that was mentioned by the delegation of Benin. Burkina Faso also made reference to a very interesting concept of how to highlight the role of consumers and how, with a more active role of consumers and users, special funds or

special mobilization of resources can occur. This also was mentioned yesterday by the delegation of the United Kingdom.

Lastly, Mr. Chairman, I would like to highlight the role of NGOs that has been very ably presented by Deborah Moore, and that is how the NGOs can play a key role as brokers of services and administration processes.

**Statement given by Mr. Ahmmad Al-Akayleh
Minister of Municipal and Rural Affairs and the Environment
from Jordan**

Thank you Mr. Chairman,

The question of the environment is an essential one. It is something which affects us all, the whole of the planet, which is so vulnerable and threatened. It is therefore our duty to extend to each other the hand of help and friendship, especially because of the lack of water in so many of our countries. What is water, if not the pillar of life? Jordan is an arid or semi-arid country and 91.4% of our territory is classified officially as arid. We only have 1.1% wetlands, very few aquifers and very little groundwater, which is our main source of fresh water. It is very difficult to supply the water to the population as and when it is needed. Only 80 litres per day on average can be provided, which is not much compared to other countries, some of which have 300 litres per day as the norm. Because of our lack of water, we have to drill extremely deep wells, which not only affects the environment adversely, but also the quality of the water itself.

The Jordanian Government is able to supply 89% of the population with drinking water, and also provides approximately 20% of that same population with sanitation. We use domestic waste water for irrigation purposes, and some of it goes straight into farming. We try in every way we can to make the optimum use of the water we have. Measures have been taken for instance, to mobilize all the institutions within the country which have anything to do with water and water supply. We have a list of these organizations and what their priorities are, and the government's task is to coordinate their work and also to reconstruct water systems which have fallen into disuse. A special programme has been established for this purpose, under which we distribute what water we have in such a way that each citizen gets at least an adequate minimal supply. There is also the very important task of raising the awareness of every member of society about how important and how precious a resource water is.

We still face many problems, not in the least the fact that our population is growing, both because of the birthrate, and because of immigration. This has to be tackled on both a regional level and on a global level to make sure that the water can be

shared fairly. We also have government plans to tap new sources of fresh water, because water is a very high priority for the Jordanian Government. For instance, we are now implementing one water project which is being discussed at ministerial level in the cabinet, along with other projects which lay down the measures and the steps to be taken for saving water at both the industrial level and by individual households.

For us this is a very important conference, because we see it as a natural follow-up activity to Rio. Supplying drinking water to every citizen is a question of the highest priority, and the Jordanian Government will do all it can to achieve this aim, while protecting the environment at the same time.

Thank you.

SESSION 5: WATER AND INSTITUTIONS - ORGANIZING SERVICE PROVISION AND EFFECTIVENESS

Statement on behalf of Mr. Keicho Ouchi Minister of Health and Welfare Japan

Thank you very much Mr. Chairman,
distinguished delegations, ladies and gentlemen.

It is my great pleasure to have an opportunity
to make my presentation shortly.

Safe water supplies and environmental
sanitation are vital for protecting the
environment, improving health and alleviating
poverty, as Agenda 21 stated. It is also a basic
need for the happiness of the people in the world.
I am very grateful to the Government of the
Kingdom of the Netherlands and to Mr. Alders,
Minister of Housing, Spatial Planning and the
Environment, for hosting this Ministerial
Conference, which is intended to set practical
steps forward to bring about the implementation
of Chapter 18 of Agenda 21.

In the draft Political Statement, governments'
role to establish the regulatory and support
framework is stressed. In my country, we
established laws on water supply and
environmental sanitation in the early stage of
development on these sectors in order to regulate
the construction and operation in keeping the
quality of service. As a result of early
institutional arrangements in the central and local
government, the coverage of service in these
sectors expanded in a short time and the services
have been maintained at a necessary level all over
the country. We must also stress the importance
of expertise especially at the local level, which
has been very effective in a practical sense of
planning, operation and maintenance.

For this reason, we have been giving special
priority in our bilateral cooperational activities to
the aspect of human resource development in
developing countries as well as the aspect of
construction of facilities. There are ongoing
projects in the establishment of training centers
for water supply and environmental sanitation in
Indonesia and Thailand. Not only construction of
facilities, but also technical assistance is taking
place, and training courses are being offered to
a number of local engineers will enable them to
use facilities and equipment more practically.

Drawing on our own experiences in my
country, we shall continue to make further efforts
in providing such support from now on.

Thank you very much Mr. Chairman.

**Statement by Mrs. Eulalia Lopez Alvarez
Vice President of the National Institute
for Water Resources of Cuba**

Unofficial translation

Mr. Chairman, Distinguished delegates, Ladies and Gentlemen,

First of all allow me, on behalf of the Cuban delegation, to express our most profound gratitude to the Dutch Government for organizing this Ministerial Conference on Drinking Water and Environmental Sanitation before the Second Session of the United Nations Commission on Sustainable Development, in which the topic on water is part of its agenda.

I am sure that the aims of this Ministerial Conference for promoting actions to follow up the commitments in Chapter 18 of Agenda 21 will be achieved. This includes exerting pressure at the international political arena to underline the topic of drinking water supply and environmental sanitation, and for promoting and supporting the increase of cooperation and coordination at international, regional and national levels. This can already be seen in the high quality and rigor of the preparatory works, as evidenced in the scope and accuracy of the documents drawn up and in the great international participation we are witnessing today.

Mr. Chairman,

After Cuba committed itself to the Rio agreements, it immediately began to work on the preparation of the National Programme for Environment and Development completed in June, 1993, which is the suitable way Cuba has worked out to implement Agenda 21, with the active participation of ministries, scientific institutions and professional organizations. Special attention is paid to Chapter 18 and others with which this topic is linked in the National Programme.

Based on this National Programme, Cuba submitted its report to the Commission on Sustainable Development in November, 1993, containing the basic actions to be undertaken up to the years 2000-2005.

For 30 years my country has worked hard in the field of water resources, and what has been accomplished is part of the achievements made by

the Cuban social and economic development programme in the last 34 years. At present we have broadly developed human resources in the field of water resources; a single governmental agency responsible for solving water problems; a hydrological and water-quality monitoring network covering the whole national territory; and a hydraulic works infrastructure which allows for 55% of usable water resources to be available in the country. Today a rate of 1200 cubic metres per capita per year and a level of coverage in water supply and sanitation have been achieved, which, although the water demand has not been entirely met yet, is the result of a sustainable development from very low levels in 1959.

By the end of 1993, 94.2% of urban population and 83% of rural population have drinking water service, taking into account the prevailing household connections, the public service and the easy access to water. The coverage of sanitation accounts for 96.6% of urban population and 76% of rural population, including both sewerage and latrine and septic tank services. In this respect, the cooperation with UNICEF is playing a decisive role in the increase of water supply and sanitation coverage in the rural areas since the 1980's.

In urban areas there are water service instability, low water pressure and serious water leakages. Wastewater treatment facilities cover only 30% of the sewerage systems. These problems are difficult to solve. The main barriers limiting the solution to the afore mentioned problems are serious financial restrictions and the external dependency which requires large hard currency investments.

The National Plan for Drinking Water and Sanitation drawn up by my country in December, 1991, as part of the National Action Programme for the implementation of the agreements of the World Summit for Children is used as a guideline to organize and coordinate efforts for achieving the purposes envisaged in this field of drinking water and sanitation.

Mr. Chairman,

At present my country is undergoing a very

difficult situation due to a sharp drop of its purchasing capacity, caused by the breaking up of its flows of exchange, its economic relations and complementary production methods established up to 1989. All this has been exacerbated by pressures and obstacles imposed by the economic blockade Cuba has been suffering for political reasons for over 30 years and which has been tightened in the last few years.

In the drinking water and sanitation sector as well as in the rest of all production and service sectors, there is a serious shortage of basic resources essential for their development as well as for their management. That is why the basic strategy in the field of water supply and sanitation is, under the present conditions in my country, to preserve, above all, the levels of coverage reached in these sectors. Local and central governments are making efforts along these lines, coordinating actions among local authorities and institutions, the population and its associations and the national enterprises and agencies.

Mr. Chairman,

As included in one of the items of the draft statements of this Ministerial Conference, the commitments made by our governments at the United Nations Conference on Environment and Development in June, 1992 offered new hope to many millions of people who suffer intolerable levels of disease, squalor and indignity because they lack access to a safe supply of drinking water and adequate means of environmental sanitation. In fact, as in the last decade, great efforts are being made both at a national and international level to change this dramatic situation.

The themes of this Conference on the efficiency in water management, the utilities financial management, the community participation, the local responsibility and self-management and the use of low-cost technologies, among others, are undoubtedly useful, valid and needed ways which will contribute to increase the coverage of water and sanitation services, to the extent and terms each country can have them implemented.

However, my delegation is concerned about the risk of disappointing the hopes of millions of people who still lack access to drinking water and sanitation if the national commitments are not supported by the appropriate flow of new and

additional financial means.

My delegation feels that within the mechanism for mobilizing financial resources set up to fulfill the Rio Summit statements, adequate attention is not given to the topic of drinking water and environmental sanitation, bearing in mind its magnitude, seriousness and urgency and its definitive influence in the development and preservation of human life, which, in turn, is the most important element in the environment.

We trust the understanding of the international community on this topic will determine the required adjustments to these mechanisms so that the topic of this Conference will play its important role.

Mr. Chairman,

I want to express once again our gratitude to the Dutch Government for organizing this Conference and for its undoubtedly successful results and to thank especially Minister Alders for the hospitality extended to us and for the excellent organization of this Ministerial Conference on Drinking Water and Environmental Sanitation.

Thank you very much!

Señor Presidente
Distinguidos Delegados
Señoras y Señores

No tengo dudas que los propósitos de esta Conferencia Ministerial de fomentar acciones para continuar el consenso sobre el capítulo 18 de la Agenda 21, de ejercer presión a nivel político internacional para resaltar el tema del abasto del agua potable y el saneamiento ambiental y de estimular y apoyar el incremento de la cooperación y coordinación a los niveles nacionales, regionales e internacional serán cumplimentados. Una muestra de ello resulta ya la calidad y rigor del trabajo preparatorio, expresada en el alcance y precisión de los documentos elaborados y la amplia participación internacional de la que hoy somos testigos.

Señor Presidente:

Cuba, comprometida con los Acuerdos de Río, inició de inmediato la elaboración del Programa Nacional de Medio Ambiente y Desarrollo, documento que constituye la adecuación cubana para la aplicación de la Agenda 21. Particular atención se da en este Programa Nacional al capítulo 18 y a los capítulos con que este tema se vincula.

Tomando como base este Programa Nacional, Cuba remitió su informe de país a la Comisión de Desarrollo Sostenible, el que contiene aspectos básicos de la proyección del trabajo hasta el año 2000 - 2005.

Mi país ha trabajado intensamente en los últimos 30 años en el campo de los recursos hidráulicos, y lo logrado en esta esfera forma parte de los logros alcanzados por el proyecto de desarrollo económico y social cubano en los últimos 34 años. Contamos en la actualidad con un amplio desarrollo de los recursos hidráulicos; con una institución gubernamental única, rectora de los problemas del agua; con una red hidrológica y de monitoreo de la calidad de las aguas que abarca todo el territorio nacional; con una infraestructura de obras hidráulicas que permite disponer del 55% de los recursos hidráulicos aprovechables con que cuenta el país, alcanzándose en la actualidad un indicador de 1 200 metros cúbicos por habitante por año, y con un nivel de cobertura en el abasto de agua y el saneamiento que, aunque no satisface las necesidades, es resultado de un sostenido crecimiento desde niveles muy bajos en 1959.

Al cierre de 1993, el 94.2% de la población urbana y el 83.0% de la población rural tienen servicio de agua potable, considerando tanto el servicio intradomiciliario que predomina, como el servicio, público y el fácil acceso. La cobertura de saneamiento alcanza el 96.6% de la población rural incluido tanto el alcantarillado como el servicio son fosas o letrinas.

En este sentido, la colaboración de UNICEF viene jugando un papel decisivo en el incremento de las coberturas de abasto de agua y saneamiento en el sector rural, desde la década de los 80.

En las ciudades se manifiesta, sin embargo, inestabilidad en el servicio, baja presión y altas pérdidas de agua. Por otra parte existe un déficit en el tratamiento de las aguas residuales con solo una cobertura de 30%. Estos problemas son difíciles de solucionar, a causa de la seria restricción financiera y la dependencia externa que compromete importantes presupuestos en divisas para su solución.

El Plan Nacional de Agua Potable y Saneamiento como parte del Programa Nacional de Acción para el cumplimiento de los acuerdos de la Cumbre Mundial en Favor de la Infancia, elaborado por mi país en diciembre de 1991 sirve de guía para organizar y coordinar esfuerzos para el cumplimiento de los objetivos propuestos en este campo.

Señor Presidente:

Mi país atraviesa hoy por difíciles circunstancias derivadas de la brusca reducción de la capacidad de compra, producto de la interrupción de los flujos de intercambio, relaciones económicas y formas de complementación productiva establecidos hasta 1989, todo ello agravado por las presiones y obstáculos que impone el bloqueo económico que por razones políticas sufre el país por más de treinta años que ha sido recrudescido en últimos años

El sector de abasto de agua y saneamiento, al igual que todos los sectores de servicio y productivos, sufren una grave escasez de recursos básicos imprescindibles para su desarrollo e inclusive para su gestión. Es por ello que la

estrategia básica en el campo del abasto de agua y el saneamiento es, en las circunstancias actuales de mi país, preservar, a toda costa, los niveles de cobertura alcanzados en estos servicios.

En este sentido se dirigen los esfuerzos de los Gobiernos Locales y del Gobierno Central, coordinando acciones entre las autoridades e instituciones locales, la población y sus asociaciones, así como con los organismos nacionales y las empresas.

Señor Presidente:

Los compromisos hechos por nuestros gobiernos ante la Conferencia de Naciones Unidas sobre el Medio Ambiente y Desarrollo en 1992 abrió nuevas esperanza a los millones de personas que sufren niveles intolerables de enfermedad, suciedad e indignidad porque carecen de acceso a un abastecimiento seguro de agua potable y a los medios adecuados de saneamiento ambiental. Considerables esfuerzos nacionales y internacionales vienen haciéndose de entonces a acá, tal como se hicieron también en la década pasada comenzar a revertir esta situación.

Las tesis de esta Conferencia sobre la eficiencia en la gestión del agua, el manejo financiero de los servicios, la participación comunitaria, la responsabilidad y la autogestión local y el uso de las tecnologías de bajo costo, entre otros, son, sin dudas, vías válidas, útiles y necesarias que contribuirán a su vez, en la medida y plazos en que cada país pueda ponerlas en práctica, al incremento de las coberturas de los servicios de agua y saneamiento.

Sin embargo, es preocupación de la delegación de mi país el riesgo de defraudar las esperanzas de esos millones de personas que aún carecen de acceso al agua potable y al saneamiento si los compromisos nacionales no son apoyados con el flujo adecuado de nuevos y adicionales recursos financieros.

La delegación de mi país tiene la percepción que en los mecanismos para la movilización de recursos financieros, implementados para cumplir los mandatos de la Cumbre de Río, el tema del agua potable y el saneamiento ambiental no ocupa el lugar que le corresponde de acuerdo a su magnitud, gravedad y urgencia, así como a su decisiva incidencia en el desarrollo y preservación de la vida del hombre, elemento principal del medio ambiente.

Tenemos confianza que la comprensión que sobre este asunto tiene la comunidad internacional, determinará la realización de los ajustes necesarios a esos mecanismos para poner en su lugar al tema de esta Conferencia.

Señor Presidente:

No quiero concluir mi intervención sin antes expresar al Gobierno de los Países Bajos nuestro reconocimiento por la iniciativa de esta Conferencia y por sus seguros exitosos resultados y agradecer, en especial, al Ministro Alders por la hospitalidad y la brillante organización de esta Conferencia Ministerial sobre el Agua Potable y Saneamiento Ambiental.

Muchas gracias.

**Statement given by Mr. Marco de Naon
President of the National Institute of Science and Technical Hydraulics
from Argentina**

Mr. Chairman, Ministers, Ladies and Gentlemen,

I am sorry if I am not very diplomatic, but I prefer to be sincere. For a series of reasons I had the possibility of intervening the International Water Conference in 1977 at Mar de Plata. At that time, similar subjects were discussed to those that we are discussing here. The so-called Action Plan was passed, but unfortunately many years went by, the International Drinking Water Supply and Sanitation Decade passed as well, and the situation is exactly the same, or maybe even worse than it was back then. The technicians in general all agree, but in order to progress and offer adequate water and sewage systems to the population, we require a firm political decision. This could be the most adequate forum to do so.

After the Rio de Janeiro meeting, the Argentinean Government adopted an aggressive policy and emphasized the importance of transforming the sector. We are handing over management of the sector to the private sector. Currently, 40% of management is already in the hands of the private sector. Drinking water networks and sewage networks have been increased. International finance sources have been used, such as the World Bank and the Inter-American Development Bank, as well as the active participation of the workers in the sector who have integrated themselves in the official policy, in a sustainable manner. The process of transferring these responsibilities from official hands to the private enterprises has been carried out in a very efficient way. For example, there has been a selection through international competitions, large investments are planned for future years, and in the city of Buenos Aires alone, US\$ 4 billion will be invested. There will be a reduction of tariffs for users, and workers will be in charge of 10% of the activities that are to be carried out. Nonetheless, there is still a lot to be done, and we will use the practical results of this conference to help us do what has to be done.

As far as environmental sanitation is concerned, the Argentinean Government has started an important fight against pollution. Law 24025 on hazardous waste has been passed, and we have established a series of parameters for water, ground and air quality. We have also applied a severe control policy. Currently there are two

clean-up projects underway for highly contaminated and polluted

rivers. One is Matanza Riochuela, and the other is Reconquista. Both involve the active participation of citizens and the use of international finances. Finally, the current Secretariat for the Environment is going to be elevated to the ministerial level after the next constitutional reform.

To finish, ladies and gentlemen, I wish to ask you to start concrete actions urgently. As the Danish delegate said, we have to start work immediately, so that in 20 years time we will not be discussing exactly the same questions and subjects as we are today.

Thank you very much, and God be with you.

**Statement by Mr. Affonso Arinos de Mello-Franco,
Ambassador of Brazil**

Mr. Chairman,

The Brazilian Government welcomes the initiative of convening this Ministerial Conference, and expects that it may be of help in preparing for the work of the Commission on Sustainable Development on freshwater, to be held in New York next May. To that end, it is important that the Political Statement and Programme of Action, which are about to be adopted, point to the obstacles and difficulties to be faced in implementing Chapter 18 of Agenda 21, and, at the same time, offer recommendations and solutions useful for the deliberations of our governments at the CSD.

The next session of the CSD will focus on cross-sectorial and critical elements concerning sustainable development. The debate on freshwater will, undoubtedly, reflect the main issues of technology transfer and financial cooperation. The recommendations of this Conference should, therefore, contribute to reduce the gaps which hinder the implementation of Agenda 21 at the national level, in particular with reference to drinking water and environmental sanitation. Two major constraints are the need of access to environmentally sound and appropriate technologies, and to adequate, predictable provisions of additional financial resources, that may enable developing countries to promote sustainable development.

The behavioural change needed to achieve the goals set up in Rio cannot be attained without international cooperation. The programme of action proposed in chapters 33 and 34 of Agenda 21, as well as in Chapter 18 and other relevant dispositions of the said Agenda, has established an adequate and sufficient framework for international cooperation in support of national action. It is useful to stress that the role of meetings such as this one is to identify problems and propose solutions within that framework.

Finally, Mr. Chairman, it must be acknowledged that the institutional structure for international cooperation was equally established at UNCED. New international mechanisms to facilitate coordination or concerted action can only be considered by the Commission on Sustainable Development if already foreseen in Agenda 21. Moreover, the CSD itself is the international body entrusted with the mandate to follow up the implementation of Agenda 21, as a whole.

**Statement from IAWQ/IWSA
presented by Mr. A. Milburn**

**THE POTENTIAL OF PROFESSIONAL
ASSOCIATIONS
IN WATER SUPPLY AND SANITATION
IN DEVELOPING COUNTRIES**

Preamble

I would like to say a few words about professional associations and share thoughts on the powerful contribution Associations can make to the development process. Associations provide three crucial elements - an effective network for information sharing; a unifying and empowering influence for problem solving and collective action; and a structure for standards setting and licensing.

Professional Associations (PAs) are member organisations of people in the same profession. Operating as volunteer, not-for-profit bodies, their members give their time and expertise to carry out most of the work, generally supported by a permanent, full time Secretariat. They are one of the most effective and potent forces in advanced countries today. Yet they are also among the least visible. The work of associations is often done quietly, behind the scenes. Thus the work they do is frequently not obvious, nor apparent to the wider public.

National Professional Associations include in their work many important activities: - the education of members in technical and scientific matters, business practices and legal issues, thereby improving the quality of publicly delivered goods and services; the setting of professional, performance and safety standards, plus ethical guidelines, all of which reduce risks faced by consumers; collecting and disseminating valuable statistics; through community service, calling forth high levels of volunteer labour, which associations then mobilise and train, to the ultimate good of society generally.

Were it not for professional associations, then other institutions would face added burdens to do their work.

In our work sector the national PAs draw their members from: - utilities, consultants, academia, government departments, manufacturers etc. - and thus provide a unique meeting place for sector professionals. Vital

channels of communication and expertise are provided through their journals, magazines and manuals. Their training courses and certification programmes provide an environment of continuing education and training. This fosters improvements in work performance, enhancing the effective use of economic and human resources and improving organisational effectiveness, to the ultimate benefit of consumers.

Every one of the modern industrialised countries has at least one national PA dedicated to the water sector. Many countries have two PAs - one for drinking water supply, the other for sanitation/water pollution control. Nearly all of these PAs are many decades old and still thriving. They are an essential component of their country's water supply/sanitation sector. In the developing world, PAs are not quite so numerous but the situation is changing and many new ones have come into being in the past 10 years or so. They have great potential and by working with them we can help them accelerate the achievement of that potential.

The International Association on Water Quality (IAWQ) and the International Water Supply Association (IWSA) have experience under their umbrella of assisting in the setting up and development of national and regional PAs and will continue to do this, to the extent that our resources permit. We are prepared to continue to assist directly and also to make our experience available to others who may wish to help. And we shall continue to provide literature, and communication channels, between the national associations.

The essential point is to recognize that professional associations are highly effective as local, moderate-cost solutions to communicating, training and standard setting within the sector. I ask everyone here present to recognize the contribution which good national professional associations can make to our sector and give all possible assistance to them to achieve their potential.

**Speech by Mr. Ozger Akad,
Undersecretary of the Ministry of Environment of
the Republic of Turkey.**

Mr. Chairman,
distinguished delegates,

I would like to start with expressing my belief that this conference will play a key role in implementing the relevant commitments of Agenda 21 and will be recalled as a fruitful forum addressing the nature of the problems and ways to overcome difficulties.

On this occasion I would like to express my thanks to the Netherlands for the kind hospitality throughout this conference and to all the participants of the plenary meetings who have accomplished excellent work through a good example of cooperation and mutual understanding.

We have always agreed that safe water supply and environmental sanitation are vital issues and should be global priorities. At this point I want to underline the important roles and the responsibilities of the governments and the local administrations for sustainable water resources management.

Being aware that the integrated management of water resources plays a vital role in the achievement of sustainable development objectives, Turkey's sixth development plan (1990-1994) and its annual implementation programmes have had the fundamental objectives of rational, coherent and consistent investment programmes regarding this sector. In this context all investment priorities have been determined by taking economic, social and environmental factors into consideration.

As a reflection of decentralization, water and sanitation investments have been shared in recent years by the local authorities, especially by metropolitan municipalities which have only taken part in operation and maintenance services since the early 80's.

The water supply and sanitation services gained considerable high momentum and progress during the International Drinking Water and Sanitation Decade.

I would like to give you some data regarding the

situation of drinking water supply services in Turkey. 64% of the urban population had been provided water supply through networks connected at home or by standpipe by 1980. For the rural population this was 62%. In 1993 these values were 97% and 85% respectively. The portion of drinking water services supplied through the government investment budget increased from 7% in early 80's to 17% in 1986. However, the rate of water supply services declined gradually during the years thereafter. The International Drinking Water and Sanitation Decade unfortunately had not entirely achieved its objective of water and sanitation services on a global scale. I believe that in the late 90's we should place greater emphasis on the promotion of cost-effective, affordable and appropriate technologies, utilization of the polluter pays principle, involvement of users in the decision-making process and system development and maintenance, taking the experiences of the 80's and the objectives of Agenda 21 into consideration.

We are all aware that water in general and drinking water in particular have become economic goods and there is indeed a cost for their preservation, storage, distribution and management. I believe most of the speeches given by the distinguished guests of this conference have clearly outlined that appropriate education and adequate financial capabilities are the two essential elements of sustainable water resources management. In this context, the role of the developed countries and the relevant international organizations in both elements and the necessity for their support and assistance to the developing nations should once again be underlined.

I would like to conclude my remarks by expressing my confidence in reaching consensus on promoting the activities for universal access to water and environmental sanitation.

Thank you, Mr. Chairman.

EFFECTIVENESS AND INSTITUTIONS
presented by Mrs. Houria Tazi Sadeq, MOROCCO.
representing the NGO community

Thank you Mr. Chairman,

I would like to thank the organizers of the Conference for having involved several NGOs from the North and the South to the meetings and the discussions.

Without having the pretension of representing our respective civil societies, we are nevertheless very close to them. We try to stay tuned in with their problems.

The vast majority of the local communities are far from being assured the right to access of water as a inalienable human right, as stated by the Round Table of Sophia-Antiopolis (21-23 February, 1994) on Water and Sanitation in Underprivileged Urban Areas.

Women and young girls, being the main victims of environmental degradation, suffer from the water situation in two ways:

- physically, because of the growing distance to water intake-points; and
- psychologically, because environmental degradation provokes a worsening of the sanitary situation for women and their children - given the absence of adequate sanitary structures -, even leading to death. Water resources are vital for, in the first place, the survival of ecosystems, of men and of poets....

Water is the source of life. Without doubt, this Conference constitutes a supplementary link in the chain of changes going on. However, the success of whatever reflection there is, is inspiring others. In effect, certain questions confront me and are related to institutional aspects. I am disappointed because of the way in which certain discourses have been translated to practice, while a posteriori one discovers that they did not understand it in the same way as all others.

The Conference has left space for making choices concerning the relative question of water allocation in relation to peace.

The question of water allocation also poses itself at the national level:

- within cities and urban quarters there are contradictions between groups of people, leading to the fact that equity is a rarity rather than the rule.

Some are completely excluded from having

water, others waste it for - by example - spraying their lawns or washing their cars;

- between urban areas and rural areas; and
- between the different regions of one and the same country.

The necessity of reinforcing and reorganizing institutions has been fully admitted. However, water continues to be seen as a merely technical matter, with the Government deciding on the needs of consumers. Adequate juridical systems and appropriate regulating mechanisms are lacking. Often, no reference at all is made to social sciences.

At the international level, all of us have recognized the priority of the water issue. Nevertheless, - as an example - the Global Environmental Fund (GEF) has not translated this priority into its own mandate. Three remarks should be made:

- the GEF considers the international waters to be part of its intervention field, at the same time considering drinking water and environmental sanitation as being merely a local question. Yet, there are clearly links established between water and climate change, or between water and biodiversity;
- only the smallest part of the GEF finances are related to the intervention field of water and environmental sanitation;
- in other fields of intervention the GEF applies to International Conventions. However, with respect to the water issue the GEF does not.

If we talk about priorities, who should have priority? Without addressing the sequence in which questions should be tackled, without recognition of the roles played by - in particular - women, and without an effective representation of women in the institutions, the results of this Conference are in danger. Institutional coordination is an irreplaceable precondition.

Inevitably, such a starting point has to be brought about by democratisation at the national and international level and with respect to the human rights.

The right for water is a human right.

**Statement given on behalf of Mr. James G. Speth
Administrator of the
United Nations Development Programme**

Thank you Mr. Chairman,

First of all, I would like to inform you that Mr. James Gustave Speth, who is the UNDP Administrator, has a vested message to the conference which can be obtained outside on the tables. The following remarks are intended to share some ideas and reflections with you. It is very clear that we discuss many principles and deadlines, but from time to time I think it is useful to go back to some actual experiences in the field, so let me share some of the following anecdotes with you.

Experience shows that top-down approaches rarely work. "It is the government's pump, and not our own," the villagers would comment, "and it is their job to maintain it." However, the government is often ill-equipped to do the job. The opposite approach can be illustrated by the following anecdote, in which engineers engaged in a dialogue with the villagers, especially the women, about a site selection and ownership of a new well. The women wanted the well close to their homes and next to trees, where they could not only fill their buckets with water, but also chat in the shade of the trees. Furthermore, they wanted a pump that could be easily maintained with a few tools and parts, and be equipped with an apron, washbasins, and water runoff to a fruit tree garden. The women said that they would collect monthly fees for maintenance, provided the community would own the pump. Thus everybody proceeded. After a year, the village committee of three women, responsible for pump maintenance and fee collection, went to the local agricultural bank to deposit their money. Much to their surprise, the banker said he could not accept their money, since he could only accept money related to agriculture, from people with some form of legal status. Since the women had neither, they found themselves at some sort of an impasse. Fortunately, the local and foreign staff of the project intervened at central government level, with the Ministries of Agriculture, Health, Public Works and Local Government, resulting in permission being given to the agriculture bank to accept this so-called non-agricultural money from three women of community group status. In addition, the women noticed that the fees collected far exceeded the costs of maintenance, upon which

the community decided to use the money to buy seeds for vegetable growing and some agricultural instruments.

Similar stories can be heard throughout the developing world, illustrating the natural link between environment, health, development and community empowerment. In other words, no mud around the well, fewer diarrhoeal diseases, extra income, and self-reliance. Lessons from all over the world from thousands of locations in many, many countries are reflected in the Political Statement and the Action Programme before us. In our view, three key aspects are of great interest, and I would like to share them with you.

1. **Capacity building**, where we focus on institutions and people, and also in that framework, on the enabling role of the government.
2. **Appropriate technology** at all levels, not only at the low-cost levels, but at all levels from village wells to urban systems.
3. **Innovative financing mechanisms** such as the old and new agenda so well articulated by the World Bank.

UNDP supports first of all, the Political Statement and the Action Programme within the framework of comprehensive water management and capacity building. We intend to intensify our collaboration with UN agencies and other external support agencies in support of developing countries. Let me mention a few examples of this collaboration. In the first place the Water Supply and Sanitation Collaborative Council. There is also the renewed emphasis articulated in this conference on the assessment of the availability of and the demand for water resources currently being elaborated by concerned UN agencies and bilateral partners, coordinated by the Secretariat of the Commission on Sustainable Development. There are three programmes that are active and can also be used to intensify the collaboration.

1. **UNDP/World Bank Water and Sanitation Program**, which, in collaboration with UNICEF and ten bilateral agencies concentrates on local, community-based water and sanitation, and increasingly on urban sanitation in a capacity building framework.

2. **Utility partnership**, which is capacity building for urban water and sanitation utilities, initiated by UNDP and the World Bank, and which concentrates on improving the efficiency of utilities and water conservation and demand management.

3. **Capacity building programme for sustainable water sector management**, which emerged from a symposium which was held in Holland three years ago. This programme is currently being initiated by UNDP, the UN water branch, and the World Bank. It places capacity building squarely amidst the financial, technical, social and economic elements of water sector programmes. To enhance the capacity building process of developing countries, water sector assessments are considered a necessary first task. This programme has been initiated in China, Peru and Bolivia, and negotiations are underway with other countries. I would like to acknowledge, Mr. Chairman, the contribution of 2 million guilders which was announced yesterday, from the Ministry of Development Cooperation, which will be used to support this programme in the future.

In conclusion, UNDP supports capacity building, which is a condition sine qua non for sustainable human development.

Thank you.

Statement by Dr. Rodney Williams
Minister of Education, Youth, Sports and Community Development
from Antigua & Barbuda

On behalf of the Government of Antigua and Barbuda, I wish to thank the Dutch Government for hosting my delegation at this Ministerial Conference on Drinking Water and Environmental Sanitation. Thanks also to those who worked hard to put the papers for this conference together.

Antigua and Barbuda is a twin island state with a population of approximately 68,000 people, and lies 1,500 miles south of the Florida peninsula in the heart of the Caribbean.

Antigua and Barbuda is a tropical country, with a comparatively low rainfall for the region. No one can doubt the importance of water which:

- forms > 90% of our bodies;
- is the universal solvent;
- is the medium in which all bodily reactions occur.

The sources of water in Antigua and Barbuda are desalination, which supplies 18 million gals/day or 60% of our daily needs, and the rest comes from underground via wells and surface water in dams and ponds. Farm water harvested in dams and ponds is also used.

Our water resources are managed by three ministries:

1. the Ministry of Public Utilities, which stores and distributes the water;
2. the Ministry of Health, which monitors water quality;
3. the Ministry of Agriculture, which manages and protects the watersheds.

The Environmental Unit in the Ministry of Tourism, Culture and the Environment assists in the collaboration process, and is in the process of forming regulatory mechanisms for managing water resources and other environmental issues. The Governments' aim is to provide safe drinking water in quantities adequate for the basic needs of our people. We have an average annual rainfall of 95 cm. which is low for the region, so our problems centre around proper management of our water resources. There needs to be proper management of our catchment areas; there are leakages in our distribution system; there is a lack of water saving devices and there are poor storage facilities.

We are experiencing a rapidly increasing demand for water from our tourist industry,

which is the engine driving our economy. The tourist sector is undergoing rapid growth and the current annual number of visitors exceeds our population by a factor of five. Also increasing is the demand for water in the agricultural sector, as agriculture seems to form close links with tourism in order to conserve foreign exchange.

Our water protection laws relate to ground- and surface water protection and the establishment of water protection zones. These laws need to be expanded to include water quality standards, the regulation of water use and the protection of watersheds.

Our ability to dispose of liquid waste has not kept pace with the developments and facilities in the water supply sector. Therefore the need for a sewerage system to deal with the quantity of liquid waste produced cannot be overemphasised. Improvements in the solid waste sector are being planned as part of an Organisation of Eastern Caribbean States, O.E.C.S./ World Bank Project.

Several feasibility studies for the management of liquid waste in urban and peri-urban areas have been undertaken, and presently technical and financial assistance is being sought for implementation. The time for implementation of the action plan for Agenda 21 relating to Drinking Water and Environmental Sanitation is now.

In Antigua and Barbuda our aim is to seek to make the best use of our resources, directing them to projects which best meet the needs of the majority of people and which are consistent with the objectives of sustainable development, and which are:

- technologically appropriate;
- economically feasible;
- environmentally sound; and
- socially acceptable.

My delegation from Antigua and Barbuda endorses the Action Programme as a further step towards sustainable development of drinking water and environmental sanitation services.

**Statement by Representatives of the Scientific Community
given by Prof. G. Allaerts from IHE**

This Statement is based on comments from a large, representative group of Scientist, academics and professionals from all continents and several disciplines.

KEY CONSIDERATIONS

A water crisis with two faces

1. Our ability to provide now, and in the future, good and sufficient drinking water to the world's population is the ultimate test whether we manage well the water resources at the levels of the individual households and of our biosphere.

We have been familiar with the fact that in many regions off the world problems occur with provision of wholesome water. Over the next decades, however, many more people, and in most regions, will be faced with the same difficulties if we fail to become more effective in the delivery of the water to the individuals and in the management of the resource.

The major threat both to public health near the habitat, and to the quality of the resource, is lack of sanitation or wastewater treatment and disposal -- the waste production being a direct consequence of the water use in the household, and in industry and irrigated agriculture.

2. Presently only two-third of the world's population has access to water supply, because of poor institutional frameworks and poorly operated infrastructure, lack of finance or because of relative water scarcity. Well into the 21st century, billions of people, mostly in developing countries, will suffer physically and economically from lack of access. Millions more will lack decent sanitation.

Water under pressure of growth

3. The world's population and economy further grow to such proportions that environmental resources, like water, ecosystems, soil and space, will become even more stressed and are likely to suffer from more degradation. For future generations to survive we must be able to prevent further irreversible degradation of the resources to achieve more sustainable growth.

But what is the operational meaning of 'sustainability', and what actions promote it?

Research and education are for some time already recognised as key factors for national development. However, for the first time in history we enter an era in which a country's competitive edge and perhaps survival will increasingly depend on the ability of its scientists, decision makers and professional to correctly forecast long-term negative environmental impacts of present-day actions, and to the ability to be effective in setting up the structures to manage development accordingly.

Throughout the history of human kind, the world has been large enough to meet human needs or to allow peoples in distress to migrate to more benign regions. The world now appears to get 'full' and we find ourselves more and more placed with our back against the wall.

4. Provision of drinking water, and the subsequent safe disposal of waste and wastewater, are two sides of the same problem. More drinking water means more wastewater. However, it must be recognised that most of consumption growth is not due to increasing coverage with basic service (e.g. with handpumps) but to consumption by industry and those who have already access to domestic water supply. Similarly, appropriate low-cost sanitation (e.g. with pit latrines) does not add to net waste generation.

At the same time, as a result of large investments in water infrastructure, the coverage will increase markedly over the next decade, and the demand for water by individuals and by industry will grow by multiples. Most of this will occur in the context of the progressive urbanisation of the world in the developing and industrialising world. Irrigation typically uses 80% of the available freshwater. This growing water use threatens the environment-base of water provision (see Box 1).

5. Clearly, by doing good on one side we impact negatively on the other. Remediation is possible but expensive. We must recognise this conflict, which over the coming decades will sharpen; setting priorities in the use of financial resources will leave an increasing number of other problems unaddressed -- unless we become much better in developing the right policies and strategies and in implementation.

Box 1. Generic long- and short-term environmental threats caused by increased water consumption; some are cumulative nature and very difficult or expensive to control:

- Unsustainable water resource abstraction, notably of fossil groundwater;
- an increasing return flow of poor quality, proportional to the growing water use;
- increasing salinity after each use cycle, a water flow often being used several times (e.g. in a vast area around the Aral Sea surface and groundwater have become saline over the past 50 years);
- eutrophication of water sources due to accumulation of nutrients, which are the essential ingredients and inevitable 'end products' of all agricultural and biological activity; and
- region-wide progressive quantity and quality changes of the water resources due to their relation with atmospheric and geophysical processes (such as desertification and acidification).

And 'the snake starts biting its tail': use of pit latrines, so useful in low-cost sanitation in many areas, let sewage seep into shallow and deep aquifers. Even in medium densely populated areas (i.a. Iran, Yemen, Botswana) people literally live on a huge underground sewage bubble from which they abstract drinking water.

Box 2. Drinking water and sanitation problems, and the way they should be tackled, are insufficiently recognised as of world-wide relevance:

- In comparison to the problem of climatic change and ozone depletion, water related problems are already claiming thousands of victims daily, all over the globe, and will continue to do so for decades. Improvement of this situation is able to create benefits of immense humanitarian and economic significance;
- drinking water and environmental sanitation are a key to public and environmental health for the South as well as the North. The south is still faced by infectious and parasitic diseases related to water and excreta, notably diarrhoeal diseases; the North is witnessing the emergence of new water-related health concerns such as those related to *Cryptosporidium* and *Giardia* cysts, virulent *E. coli* strains, nitrate, micro-contaminants and disinfection by-products, by over-exploitation of resources with negative ecological impacts, by high pollution risks and by vast water transfer schemes of which the long-term sustainability is often questioned;
- many water resources such as lakes and watersheds have a trans-boundary character, or a country's water resources may be affected otherwise through the environment by its neighbours' actions (e.g. acid rain); this calls for multilateral quantity and quality management.

The nature of the problem

6. Ensuring that everybody can be supplied with safe water and has access to sanitation, and safeguarding the environment-base of our water resources, are common problems for all countries (see box 2). They pose a world-wide challenge of a managerial, scientific and technological nature.

Despite the commonalities, each country faces its own priority problems in function of its specific drinking water and environmental sanitation conditions. Nonetheless, it is possible to discern three characteristic situations:

(i) regions where the main problem is and remains adequate access to drinking water and sanitation because of institutional or socio-economical/financial constraints; these regions tend to be poor, and water-related diseases are often rampant; this is typical for large, notably rural parts of Africa, South-East Asia and Latin America, as well as for the fringes of the rapidly expanding cities and towns on these continents;

(ii) regions with high population density, industrial and/or agricultural activity, where the availability of fresh water for drinking water supply is endangered by declining water quality, notably due to pollution, poor management or eutrophication of surface water; this is to varying degrees typical for most of the industrialising countries (such as China, Korea, Brazil, etc.) and former central-planning economies (such as in Central and Eastern Europe) as well as for the industrialised countries;

(iii) regions with water scarcity, where development will be hampered by lack of freshwater, and where priority must be placed on strategies for optimal water allocation and for water conservation and re-use; in many such regions groundwater is being depleted and tensions regarding local or international water rights are high; this is typical for the arid and semi-arid countries in the Arab world, and parts of the Sahelian belt, China and the Indian sub-continent.

For each of these contexts specific local policies and strategies must be developed, based on scientific data and knowledge, to attain the goal of

sustainable water provision and sanitation. Though the technical and managerial principles for solutions are applied all over the world, the success heavily depends on their flexible interpretation and on their appropriate and site-specific implementation.

7. Universities and research establishments in developing countries face a double hurdle: (i) under often precarious conditions with few facilities they attempt to maintain a good research and educational standard, and (ii) they have to make the additional effort of translating research and development results obtained in industrialised to local conditions. All too often, technologies, design procedures and managerial and policy approaches derived for conditions in the North are copied without due application.

8. The issues in the future will often centre around the nexus 'environment - economic development - poverty'. Poor people have no choice but to cash in on the short term on the resources at their disposal, rather than managing them for postponed consumption. Poverty, therefore, is a major threat to environmental quality and to sustained provision of water supply and environmental sanitation.

Lessons learned

9. The International Drinking Water Supply and Sanitation Decade (1981-1990) achieved much. In its research and education agenda several activities were undertaken:

- much intellectual effort was spent on research and development of low-investment and appropriate technologies and approaches, and health impact studies; many developments proved successful (e.g. handpump technology, VIP latrine, hygiene education, community management), while others failed to convince (e.g. small rural biogas plants, water hyacinth-based sewage lagoons);
- national water resources assessments were carried out; though useful, their lack of comprehensiveness often was not inductive to apply results;
- the International Training Network on Low-Cost Water and Sanitation (ITN) was developed and became instrumental in influencing both university engineering curriculums

and ministries; also, series of publications were devoted to dissemination of know-how on appropriate technologies and implementation approaches.

Many researchers and professionals became involved in these activities, but they could not create a major, formally coordinated interest among academics worldwide. Many academics shied away from what was perceived as too much field-related. Funding was provided but rather rarely from common, structural research and development funds. Most research remained focused on problems of the North.

10. The World Development Report 1992 and other authoritative sources cite two priority actions if the objective is to make further progress in water and sanitation coverage: (i) adaptation and strengthening of institutional frameworks that treat the consumer as a serious partner with rights and obligations, rather than as a voiceless beneficiary, and that take new roads to mobilise financial resources, such as contracting out, public-private partnerships, and community management, and (ii) lower unit costs of facilities, notably in the range of sanitation options which need to be widened.

11. Significantly, a major lesson of the Decade is that projects in rural and peri-urban areas can succeed only if the target communities are involved in the planning of projects, and in (part of) the operation and maintenance of the infrastructure. To this end communities need to be committed and organised to achieve a reasonable degree of cost recovery. The role of women (and of children) appeared much more critical than assumed. Hygiene education, local income generation, and credit provision components may be required.

12. The water sector organisations play a central role. Though usually lacking the expertise to work with communities, they are their formal counterparts. In most countries these organisations are still 'hardware'- and construction-biased with comparatively little interest in maintenance and asset management. Though sometimes well staffed, they typically lack a sufficient quantity of specialised professionals able to approach issues beyond civil works construction. Sanitary and public health engineering, and community management, marketing and financial expertise often are weakly represented.

This has been cited as one important constraint for further rapid development.

13. The success of our actions will to a large extent depend on the effectiveness of the institutional arrangements chosen; though command-and-control type of arrangements will remain necessary, we will have to rely more on delegated structures for implementation, financing, accounting, monitoring and feedback.

A key institution at the lowest appropriate administrative level, could in many cases be the water utility, provided it can be made accountable: it manages water provision and local environmental and public health quality (equity objective), and it should have considerable interest in the management of the environmental resources that affect its water resources. In rural and peri-urban areas community-based management has often proven feasible.

MEASURES RECOMMENDED

14. A prerequisite for more sustainable development is a sound knowledge base in the form of educated professionals and research capacity.

Firstly, to allow forecasting of induced environmental changes and their significance, and identify remedial action; secondly to enable demand management in relation to sustainable resource management and development; third, to advise how this can be achieved by measures and management in the socio-economic and institutional realm; and fourth, to enable local staff to analyze the specificity of their local problems and to adapt general principles, technologies and approaches to the local physical and socio-economic conditions.

15. Given the future threats to our water resources, and the evidence that competition will increase, on the one hand, and the limited scientific capacity on the other, it is mandatory to more carefully identify priority actions and areas.

16. A single, unique 'water agenda' does not exist, as each country or region has its own characteristics and faces its own priority problems.

In countries where large numbers of people still don't have access to water and sanitation (case (i) in section 5), the 'effective delivery agenda' should have priority over water protection agendas.

Box 3. Proposed research themes:

- Problem-oriented research capacity to carry out site-specific, adaptive and locally appropriate research;
- understanding of similarities and differences between different hydro-climatological, geographic and socio-economic settings;
- water re-use and recycling technologies, desalination, and control of nutrients spilling into oligo- or mesotrophic aquatic ecosystems;
- technologies and approaches that are able to reduce the risk of pathogens entering water resources, and prevent them from being ingested by humans; lower-cost and reliable methods that are able to prevent disease transmission for densely populated settlements;
- on-site sanitation, drainage and sewage collection and treatment for densely populated areas;
- wastewater management making use of managed natural ecosystems to complement engineered systems;
- waste minimisation and prevention in industry;
- institutional and financial constructions that allow to delegate tasks to local government, and rural and peri-urban communities;
- effective use of types of public/private partnerships and decentralisation; performance indicators for various forms of autonomy and accountability of water organisations;
- the economic significance of water in households and industry;
- regulatory and pricing instruments to affect water demand by households and industry;
- endogenous and indigenous socio-cultural systems that can be used to improve service delivery and management; especially focused on women;
- appropriate data-bases, and expert decision support systems;
- guidelines to make projects more flexible in execution and monitoring to allow communities to be involved in project selection and planning;
- sharing of water resources in a basin with 4 main functions in mind: health, ecological habitat, agricultural production and waste absorption;
- sustainable growth of urban centres in the context of the carrying capacity of its surrounding environment;
- identification of the nature of inter-sectoral and international competition and tension, and procedures to mitigate these.

Water-borne pollution research in case (ii) countries tends to be adequately facilitated by scientific and other associations.

17. Particular pressing problems for study in most countries are (see box 3):

- the development, management and conservation of water resources;
- problem-oriented research (and adaption of existing basic technologies and principles) for socially acceptable, financially feasible and appropriate technologies, that are conceived to facilitate operation and maintenance ('sustainable infrastructure');
- institutional issues that would facilitate or make more effective delivery of water and sanitation services, and water resources management, and that rely on reasonable form and degree of cost recovery ('sustainable institutions');
- policy, financial and technical aspects of extension of services to the poor.

18. In the drinking water and environmental sanitation sector in developing countries, the modern questions being of a less technical nature, a integrated and often multi-disciplinary approach is required. We must intensify utilising (also) other disciplines (such as management, marketing sciences, anthropology and public awareness creation) for education and research in the sector. A useful outlook on this multi-disciplinary approach is offered by the International Training Network on Water and Sanitation (ITN) of the UNDP/- World Bank Water and Sanitation Program; this network should receive more political and financial support.

19. Global trade flows, consumption patterns in richer countries, and national trade and industrial policies can negatively affect water and environmental management issues in developing countries. These relationships deserve special research attention.

20. Academics should be encouraged to recognise the gap that presently often exists between research and field problems. Funding from government and other sources should be used to guide research and development activities, and curriculum development.

21. More must be invested in the future, and/or

it must be done in a more effective way. This pertains to both industrialised and developing countries.

In developing countries, brain drain to other continents or better paying sectors should be avoided, by developing and using career development opportunities, salary structures and working facilities in universities.

Countries and donors should consider setting a minimum percentage of water and sanitation investment amounts to be devoted to local capacity building.

Establishing research organisations or special programmes, separate from universities, can be good options to increase focused output and career opportunities. Good contract research also is geared to solve industry's questions. Governments should stimulate additional financing of academic activities by private sector.

22. A priority, often of overriding importance, is to ensure education of the future generations of professionals.

23. Through regional and international cooperation research and education capabilities can be strengthened, and avenues for exchange of experience improved. The international community is called to facilitate twinning between universities and research establishments to conduct joint research and develop improved and more focused educational curricula, to facilitate international communication (e.g. by e-mail), to promote exchange of staff to increase their international professional standing, and to specifically strengthen research and educational capabilities in developing countries. A concrete component is recommended to be the review of appropriate manuals and textbooks.

24. The International Association on Water Quality and the International Water Supply Association, as well as other scientific associations, are called to concentrate expertise and facilitate transfer and exchange, e.g. by setting up specialist groups, and making their work more effective in developing countries. This will allow selection of useful experiences from industrialised countries, adapt them for developing countries, and promote the functioning of a platform where interested professionals can learn from each other.

**Statement given by Mr. Rudyard Lawson
Minister of State
of Jamaica**

Mr. Chairman,

The Rio de Janeiro Conference gave rise to hope, as it was widely believed that the world community had recognized the growing problems of the environment and was committed to responding to this growing challenge. Some cynicism was also expressed that it would be "business as usual" after the fanfare of the conference.

If hope is to be kept alive we must translate the commitments of Rio de Janeiro into concrete actions. It is in this regard that I consider this conference timely and important.

In Jamaica the search for and supply of water has assumed great significance. Recurring shortages have caused economic losses as well as inconvenience. Although the potentially available water resources seem adequate to meet our needs, this in itself is no reason for complacency. Our water reserves are being threatened by salinization resulting from localized overabstraction in the coastal aquifers, reduced flow in some watersheds and contamination by industrial wastes.

Our efforts to address some of our identified water resources problems have only served to highlight the complex and difficult nature of water resources management in small limestone islands.

We have already embarked on a programme to remove contradictions in national legislation and will be embarking on new activities to protect catchment areas and aquifers.

The absence of a unified and cohesive legislative framework has hampered the proper administration, development and optimal use of the water resources of Jamaica. There are often conflicting claims by various agencies for the use or control of available resources. The new legislation will address some of the inadequacies of the existing legislation which:

- (1) perpetuate uneconomic activities, and;
- (2) artificially separate surface and groundwater which are whole in nature.

It has been recognized that the establishment of effective institutional structures and management procedures are important elements in the

sustainable development we seek. Already started is the decentralization of our water institutions with emphasis on the delegation of power and responsibilities to the local level. The required technique and new attitudes are not readily available to a system unaccustomed to this approach. We have started to build partnerships with local communities and will also seek to expand our partnerships with the international community. It is our belief that the Political Statement and Action Plan developed at this conference, will be of tremendous benefit to us in Jamaica as it will serve to give a new emphasis to new approaches in water resources management and environmental sanitation.

Mr. Chairman, in wishing this Conference every success I am wishing that the realistic and implementable outputs developed here by all of us will be real commitments as we to respond to the challenges of the new imperatives in water resources management environmental sanitation.

**Statement given by Mr. K. Töpfer
Federal Minister of Environment
of Germany**

Water pollution does not stop at national borders. In order to solve the problems arising in a river basin, co-operation between riparian countries is strongly needed on a basis of solidarity. The river Rhine demonstrates in a very special way the aims and successes of German and European water protection policy. Because of the deterioration in the Rhine water quality after World War II the riparian countries - CH, F, L, D, NL - decided to co-operate within the International Commission for the Protection of the Rhine (ICPR).

In 1963 an agreement under international law was signed in Bern, Switzerland, and in 1976 the European Community joined in as an additional Contracting Party. According to the Bern Agreement, the task of the ICPR, located at Koblenz, Germany, is i.a.

- to prepare all required research for the assessment of the nature, extent and origin of the Rhine pollution, to ensure the execution of this research and to interpret the results;
- to propose to the Contracting Parties appropriate measures for the protection of the river Rhine;
- to prepare International Treaties for the protection of the Rhine catchment area.

One of the 'measures appropriate for the protection of the Rhine' is the Action Programme "Rhine", which was initiated by the ICPR. It aims at a clear improvement of the water quality as well as the ecosystem and comprises actions:

- to reduce the pollution originating from direct inputs (industry, municipalities) and non-point sources (atmosphere, agriculture);
- to reduce accidental spills by increasing the security of industrial plants;
- to improve ecological conditions for flora and fauna.

The first phase of this programme has been concluded, the second phase will be finished in 1995.

The Rhine has clearly recovered from heavy pollution. This shows the effectiveness of co-operation of riparian countries within a large river basin and encourages to co-operate in the

same way in many other river basins.

Following the model of the ICPR an International Commission for the Protection of the River Elbe was established in 1990, which already has achieved positive results, i.a. the so-called Immediate Action Programme of 1991. Furthermore negotiations have been concluded on the foundation of International Commissions for the Protection of the rivers Odra and Danube.

The riparian countries involved are certainly ready to give any information to other countries which believe that similar structures could help solving their water problems.

**Statement given by Mr. J.R. Kanjere, M.P.
Minister of Works from Malawi**

SALUTATIONS

I would like to record on behalf of my delegation, the recognition Malawi has given to the importance of this conference, and the tone of excellence in the topics which adequately cover the obligations of all governments as they endeavour to provide water services that will satisfy the aspirations of all societies all over the world.

Mr Chairman, in considering drinking water and environmental sanitation, Malawi has taken great strides to initiate an integrated approach toward water and sanitation delivery systems, and put in place a vigorous motivating campaign where the end user is part of the decision-making process and takes part in the construction of these systems. This process has yielded very effective results in that the communities in Malawi carry over the project goals themselves at the time when the project is officially declared completed. For purposes of having assurance in clean water, a healthy society and a sustainable livable environment, all sectors of my government having direct interest on water delivery systems have joined hands to promote the Health Education and Sanitation Programme (HESP) within the existing and on-going rural water supply schemes. The beneficiaries are in the forefront in seeing to it that the programme is successful since they recognize that they are the ones who benefit from the programme. The Malawi Government is steadily moving towards a sphere of becoming a promoter rather than a provider.

Mr. Chairman, I would also like to share, with the distinguished Excellencies gathered here, that today Malawi has a population of 9 million, of which 10% is urban and 90% is rural, but has a total of 56 gravity-fed rural water supply schemes all implemented within the past 25 years. There are 9,700 boreholes and some 5,000 shallow wells all fitted with the Village Level Operation Maintenance (VLOM) type of handpumps. These services provide water to 4.1 million people. Investment allocation towards water supply in Malawi is yielding dividends in that clean water is increasingly reducing the incidences of water-borne diseases which now stand at 8% of all the deadly diseases. The rural communities are gradually accepting the importance and benefits of

fetching water from protected sources.

We take pride in registering our strong determination to endeavour. Reaching full coverage of the rural areas with clean water supply systems and further paying attention to water as both a social and economic good. Mr. Chairman, my delegation would like to acknowledge with gratitude the seriousness of this conference in recognizing that water is also a social good.

Malawi has an active National Environmental Action Plan which is addressing all environmental areas in order to allow for a more sustainable future, and we believe that this programme will tie in very well with a National Water Development Project which the Government has indicated to address the problem of water resources in Malawi through World Bank funding.

Malawi recognizes that intergovernmental visits within Africa and from the donor countries are important as a dimension to learn the why and how of solving our problems. To this end Malawi would welcome countries who would like to visit us, but would also like to express that we will contact those countries with proven solutions and those who are busy searching for solutions.

MR. CHAIRMAN, LADIES AND GENTLEMEN, I THANK YOU FOR LISTENING.

**Statement given by Mr. J.G. Cardoso,
Minister of Natural Resources of the Republic of Guinea Bissau**

Excellencies

Honourable Delegates of the Conference

Ladies and Gentlemen,

Between 1987 and 1991 Guinea Bissau has elaborated, with the assistance of the UNDP, a logical framework for the implementation of the activities in the water supply and sanitation sector, establishing a consistent policy and strategy aimed at making progress in the sector. This framework was elaborated, using as a guide the main principles defined at the conference of Abidjan and the global consultation of New Delhi, thus following the main strategies established internationally during the last decade.

Being one of the poorest countries in the world, Guinea Bissau needs continued external support to realize improvements in the areas of drinking water supply and sanitation in a structured way, to respond to the actual needs of the population. The existence of the logical framework proved to be an extremely helpful tool in the planning and realization of activities serving as a basis for coordination of inputs from different external support agencies, amongst others, UNDP, UNICEF, World Bank, the Netherlands, France, Switzerland, the EC, Japan and DANIDA.

During the international conference about assistance to the African child, organized by the Organization of African Unity and UNICEF in 1992 in Dakar, the need for continued investments in the sector was stressed and it was recommended that national programmes of action be developed to ensure progress. It is foreseen that in the period between 1993 and the year 2000 an investment of 5.2 million US dollars will be needed for water supply and 4.2 million dollars for sanitation. Especially in Sub-Saharan Africa this issue of external debt has to be addressed if progress is to be made in the sector.

During development and realization of national programmes several strongly related issues should be taken into consideration:

- * the necessity to give more attention to human resources development within the developing countries to ensure national capacity building, reduce external dependency and increase institutional strength;

- * the necessity of anchoring within these programmes the (by now) well known principle and condition of participation of involved partners, taking into consideration the gender issue, to ensure the sustainable use of the existing water supply and sanitation infrastructure. Raising this level of effective participation, starting from the planning phase of possible activities, is an absolute condition which should be insisted upon by politicians and decision-makers;

- * up till today we encounter proposed schemes with inflexible fixed physical goals to be met, in which users participation is given minor importance. Realization of this kind of schemes implies nice pictures of created infrastructure in the short run and having to cope with disaster in the long-term through non-functioning systems because the actual demand was not met.

Directly related to with this observation is the problem of continued underestimation of the importance of elaboration and execution of programmes which take drinking water supply and improvement of sanitation facilities into consideration in an integrated and coherent way. These two elements are two sides of the same coin and effectivity of improved drinking water supply is drastically reduced if the sanitation issue is not properly addressed.

National governments and external support agencies may consider these issues, and, instead of fearing the consequences of having to support activities in two different although related fields, acknowledge the important advantages if activities in relation to drinking water supply and sanitation can be developed and realized in an integrated and flexible way, adjusted to actual demand.

As a last point I would like to mention that, as experiences have taught us, the realization of improvements in the sector depend heavily on the development and implementation of mechanisms for effective intersectorial collaboration. Although the political will has been expressed frequently, now the need exists to define exactly how to realize efficient and effective institutional frameworks, with the involvement of the relevant partners.

In the present existing "communication culture" we have to ensure that the opportunities which exist in the fields of information, education and communication will be used to the full extent.

I hereby invite national governments and international agencies to incorporate in country programmes, the explicit intentions and strategies to implement and realize the mentioned inter-sectorial collaboration leading to higher efficiency in reaching the desired goals.

Finally, as far as the Political Statement and Action Programme are concerned, I would like to express, on behalf of my government, my full agreement.

Thank you for your attention.

**Statement given by Mr. Milton Caldera Cardenal
Ministro Instituto Nicaraguense de Acueductos y Alcantarillados
from Nicaragua**

Thank you Mr. Chairman,

Nicaragua is a small country in the centre of Central America, with approximately 4 million inhabitants, and an area of approximately 135 square kilometres. It is known in the region as 'the land of lakes and volcanoes'. We have sufficient drinking water available for the whole country, however, due to a lack of economic resources, we have serious problems in delivering water to our population, and to give adequate treatment to waste waters.

The 1980s was a lost decade for us. Almost all of the resources were used for the civil war, and our citizens were accustomed to having the government do everything. The government operates and maintains 148 aqueducts, thanks to which approximately 170 cities and towns all over the country are served with water. Likewise it operates 20 sewage systems which serve the main cities of the country, including the capital. Only 60% of the total population of the country has healthy drinking water available, and only 20% has sewage services. Due to the political instability during the eighties, there was, and still is a tendency to migrate from rural areas to urban areas. This migration represents 6% of the population annually. This increase of city populations has put great pressure on drinking water and sanitation systems.

After the Rio declaration our government started to transform this sector, and has achieved the following objectives. There was a revision of the legal framework in order to create decentralized, territorial enterprises in charge of drinking water and sanitation, and in doing so, the role of the government was reduced and popular forces, as well as private initiative were able to intervene. The ministerial culture was transferred to territorial areas. A national commission for water resources was created in order to coordinate efforts made by different ministries in the fields of energy, environment, health, municipalities and others. Great efforts were made to account for lost water. A large programme was created for institutional strengthening, and in order to improve training in the water sector, different programmes were applied.

Since the Rio meeting we have regulated the self-

financing of this sector, in spite of the fact that there is an enormous amount of unemployment in the country. Before, the central government subsidized quite a few activities that were being carried out in this sector. Several sanitary education programmes have been created with the Ministry of Health. In the last 12 months, three important events have taken place to inform the population of the difficulties facing the water sector, and to indicate what has to be done to protect the health of the population. We hope that all these new strategies will give adequate results.

Thank you very much.

**Paper presented by the Minister of Lands, Agriculture and Water
Development, the Honourable Kumbirai Kangai
from Zimbabwe**

Mr. Chairman, ladies and gentlemen,

Water supplies in Zimbabwe are mainly generated from surface run off and this depends on a mean annual rainfall of 700 mm. This annual rainfall has been estimated to be 270 billion cubic meters of water annually of which some goes to the sea, some infiltrates into the ground, and some is lost through evapo-transpiration. Rainfall come in a very pronounced seasonal pattern which makes the construction of storage facilities vital in order to make use of rainfall runoff during the dry months of the year. Although surface sources provide the bulk of water used in the country, ground water is a more reliable source and wells and boreholes provide drinking water for most of the human and livestock population throughout the countryside.

Water is increasingly becoming a scarce commodity not only in Zimbabwe but throughout the world, hence its management requires a careful balance between central government planning and control on the one hand and individual initiative and management by users on the other. The way water is managed, conserved and used has a direct impact on any country's development pattern.

In its efforts to provide this essential commodity for life, for health for agriculture, for industry and also to sustain the environment, the government of Zimbabwe is faced with a multiplicity of problems. Some of these problems are the availability of water itself, siltation of dams, water quality, pricing, and funding.

In conformity with the International Drinking Water Supply and Sanitation Decade (IDWSSD) 1981-1990, it is the Government's desire that the 7.5 million people living in the rural areas have adequate access to safe and uncontaminated supplies of drinking water and adequate sanitation facilities. People from most parts of the country particularly those from high rainfall areas suffer from water related diseases. The common aquatic disease schistosomiasis, more commonly known as bilharzia, requires strict management of the disposal of human waste as well as reduced contact with river water and control of the host snails.

The provision of this essential commodity will

save countless hours of walking to fetch water and millions of dollars spent on treatment of water related diseases. Many people from the developed countries find it difficult to appreciate the daily task confronting many of our women and children in the collection of adequate water for drinking and other domestic requirements. This time could be more fruitfully used in other pursuits that would raise their standard of living.

In the First Five Year Development Plan 1986-1990 one of the main objectives of the government of Zimbabwe was to develop water resources in the rural areas which had been much neglected in the past. The prime consideration was the provision of safe drinking water and sanitation in order to improve the health status of the rural people. Government commitment to the decade's requirements was emphasised in 1985 when consultants were commissioned to prepare a National Master Plan for Rural Water Supply and Sanitation Programme. The programme currently under implementation is aimed at covering the communal areas throughout the country.

The aims of the IWRSS programme are:

1. The provision of potable water from boreholes and deep wells to the rural population in the communal and resettlement areas.
2. To rehabilitate existing water points to national standards, including the provision of headworks.
3. To promote health education and community participation so as to encourage safer use and maintenance of facilities provided.
4. To strengthen the three tier maintenance structure by establishing local management and maintenance responsibility at each water point.
5. To strengthen decentralized planning and co-ordination of rural water and sanitation projects.
6. To construct Blair toilets in the rural areas with a view to improving sanitation for over 50% of the rural population.

After the National Master Plan for Rural Water Supply and Sanitation recommendations were studied, the National Action Committee (NAC), a coordinating body composed of implementing ministries and departments was formed within the Ministry of Local Government, Rural and Urban Planning to implement the IRWSS programme.

NAC is responsible for policy issues, setting of guidelines for the implementation of the programme and approval of IRWSS district plans. The day to day issues for NAC are run by the National Coordinating Unit which has a secretariat within the same ministry as NAC.

The IRWSS programme is very successful and it is being implemented in 35 out of a total of 57 Rural District Councils. The programme has been funded mainly from external sources and Non Governmental Organisations.

Zimbabwe is fortunate in that the problem of water pollution has not reached serious levels that it has in other countries and that where problems exist, they are of a localised nature. However, in some parts of the country, water pollution poses a serious threat but timely introduction of suitable control measures at an early stage has made it possible to exercise effective control. The majority of the polluters have been dealt with through the court of justice and in most of these cases control and abatement measures have been or are being implemented.

Of the major causes of water pollution is the mining industry where the problem of acid mine drainage exist. Similar problems are encountered in some chemical plants for, example in the processing of phosphate rock for fertilizer. In the mining industry the other problem is that of possible cyanide poisoning in gold processing plants. Steel industry remains another major polluter along with sewage treatment plants and run off from farms where agro-chemical are applied.

The water Act of 1976 includes the provisions relating to water pollution control. The amendments basically prohibit the discharge into public waters of effluent which does not meet the Water (effluent and waste water standards) Regulations.

In the communal areas water pollution is by contamination of boreholes, wells, rivers, and dams by livestock and human excreta being washed by runoff and/or infiltration into these sources of water.

Siltation of storage reservoirs and pollution of surface water by industrial wastes and agro-chemicals encourages the colonisation of water bodies by aquatic weeds and algae. Some of these plants produce toxins which often find their way into urban water supply sources. In Zimbabwe a good example of the problem of eutrophication caused by the presence of high nutrient levels which accelerate the growth of aquatic weeds is in manyame and chivero dams which are the main water sources of Harare.

Physical means of control of these plants by removing mature plants has not been very successful as the nutrient source keeps on providing the necessary media for growth. Chemical means have also been tried unsuccessfully because the chemicals are either harmful or do not work. An appropriate biological method is yet to be found.

Government's present policy for rural piped domestic or purified water is to recover the Operation and Maintenance (O&M) costs only. For urban, industrial and mining (UIM) and agricultural water which is supplied as raw water, the policy is to sell the water at a price that covers the historical capital costs over a 40 year period as well as the Operation and Maintenance costs.

Primary water supplies from boreholes and wells is free but the responsibility of maintaining these water supplies is gradually being transferred to the communities who are already playing a leading in planning and constructing them. This is the conservative policy chosen by the Government.

The major obstacle facing the government of Zimbabwe in the implementation of development projects on water and sanitation is finance. The message on the need to provide drinking water and sanitation to our poor communities has been clear and we would like to kick off immediately so that everybody has these essential facilities by the stipulated dates. The unavailability of funds will continue to hinder progress on these programmes. Let me at this moment thank those friends of Zimbabwe from developed countries who have rallied behind us in providing funds for the implementation of the current water and sanitation programme. Zimbabwe will continue to kindly ask for this valuable assistance. Without funds sustainable development is difficult to achieve.

I thank you.

Ministerial Conference
on Drinking Water and Environmental Sanitation
Implementing UNCED Agenda 21

22 and 23 March 1994,
Noordwijk, The Netherlands

Political Statement

Action Programme

**MINISTERIAL CONFERENCE ON DRINKING WATER
AND ENVIRONMENTAL SANITATION -
Implementing UNCED Agenda 21
22 and 23 March 1994, Noordwijk, the Netherlands**

We, the Ministers¹, meeting at Noordwijk, the Netherlands, on 22 and 23 March 1994, for the Ministerial Conference on Drinking Water and Environmental Sanitation, having reviewed and discussed the issue, on the basis of the documentation for the Conference as listed in Annex 2,

1. REAFFIRM THAT:

Our task is to find ways to help our governments to implement Chapter 18 of Agenda 21.

1.1 In that context, we stress the need for integrated water resources management. Chapter 18 calls for:

- holistic management of freshwater as a finite and vulnerable resource and integration of sectoral water plans and programmes within the framework of national economic and social policy; and
- perception of water as an integral part of the ecosystem, a natural resource and a social and economic good, whose quantity and quality determine the nature of its utilization.

1.2 In the particular context of drinking water and environmental sanitation, we draw attention to Chapter 18's affirmation of the need, identified at the Global Consultation on Safe Water and Sanitation for the 1990's, in New Delhi in 1990, to provide, on a sustainable basis, access to safe water in sufficient quantities and proper sanitation, emphasizing the approach of "some for all rather than more for some". Chapter 18 commits governments to New Delhi's four guiding principles:

- protection of the environment and safeguarding of health through the integrated management of water resources and liquid and solid wastes;
- institutional reforms promoting an integrated approach and including changes in procedures, attitudes and behaviour, and the full participation of women at all levels in sector institutions;
- community management of services, backed by measures to strengthen local institutions in implementing and sustaining water and sanitation programmes;
- sound financial practices, achieved through better management of existing assets, and widespread use of appropriate technologies.

¹ For the list of countries and organisations represented at the Conference see Annex 1.

- 1.3 As mechanisms to implement programmes based on these principles, Chapter 18 stresses the need to:
- build capacities, at all administrative levels, involving institutional development, co-ordination, human resources, community participation, health and hygiene education and literacy, which is one of the underlying keys in implementing strategies;
 - identify means of financing the substantial costs involved;
 - adopt technologies that are responsive to the needs, and constraints imposed by conditions of, the community concerned.

2. RECOGNIZE THAT:

Many countries face a water crisis

- 2.1 Explosive growth of urban centres, unsustainable exploitation of natural resources, uncontrolled industrialization, increasing water demand for food production, and expanding populations lacking proper environmental sanitation have led to progressive depletion and degradation of freshwater resources. Many current patterns of water use are not sustainable. Rising costs of developing ever-more-distant freshwater resources threaten economic development, while both the visible and the less visible effects of reckless waste disposal and inadequate environmental sanitation spread squalor, disease and death. Water scarcity, and the tensions which it engenders, especially in competing claims to transboundary resources, are a potential threat to peace.
- 2.2 The rapid deterioration of water quality and the reduced availability of fresh water is directly affected by natural processes and human activities. To safeguard the sustainable supply of safe drinking water and entire watersheds, concerted action is needed on all fronts, including agriculture, forestry, transport, industry, urban and spatial planning, population planning and electricity generation. Although cities are increasingly recognized as places of social progress and economic growth, millions of urban residents lack access to safe water and adequate sanitation. There is an acute need to extend sustainable water and sanitation coverage to the urban poor. Many countries also have large rural populations and efforts to extend service to the rural poor should be continued.

To satisfy, at least basic needs for water and sanitation, the crisis can and must be resolved.

- 2.3 The commitments made by Governments in Chapter 18 of Agenda 21 offer new hope to the many millions of their citizens who suffer intolerable levels of disease, squalor and indignity because they lack access to a safe supply of drinking water and adequate means of sanitation. The average global death toll of six thousand children every day due to lack of safe water and environmental sanitation is a tragic reminder of the urgent need to turn the Rio and World Summit for Children commitments of Heads of States into positive and concerted action.

- 2.4 The long-term objective continues to be 'safe drinking water supply and sanitation for all'. Access to adequate water and sanitation is a basic need which has to be met. It needs to be accompanied by an obligation to use water efficiently and to dispose of wastes in an environmentally sound manner for the benefit of future generations. This is a precondition for substantial progress towards the common targets of health for all, poverty alleviation, environmental conservation and economic and human development. To achieve these goals, water and environmental sanitation programmes need to be tailored to the ability of the local environment to support them, to local socio-economic and cultural conditions and needs, and to the availability of resources. Differences in the needs, work and influence of, and benefits for, men and women need to be taken into account.

Change is needed; business as usual is not enough.

- 2.5 The International Drinking Water Supply and Sanitation Decade (1981-1990) resulted in a proportional increase in coverage, but made only a marginal impact in reducing the total number of unserved people. The main reasons have been identified as: population growth, lack of political support, inadequate community involvement, limited mobilization of resources for infrastructure projects particularly in urban areas, poor operation and maintenance of installed systems, and, in a number of cases, inadequate attention to small-scale, low-cost approaches where these would have been more appropriate than large infrastructure projects. In many countries, sanitation, communication and hygiene education, necessary to achieve the behavioural changes needed to obtain optimum benefits from improved water supplies, remained low priorities.

The Decade taught all those involved that water and environmental sanitation programmes need to be based on partnerships involving all stakeholders (users - especially women, community associations, local, regional and central government, public and private sector agencies, non-governmental organisations). Government's role is to establish the regulatory and support framework. This includes the determination and enforcement of drinking water and effluent standards, and the support needed, at appropriate levels, to enable local partnerships to deliver local services in accordance with the expressed needs and willingness to pay of all users, and facilitate a balanced distribution of contributions, influence and benefits. A key role of domestic financial institutions and external support agencies is to support strategies to assist the underprivileged. These strategies should be cost-effective, based on the real needs of communities, and designed to protect critical aquatic ecosystems and water source catchment areas.

We need to use our resources - people, water and finance - more efficiently.

- 2.6 Lessons learned from the International Drinking Water Supply and Sanitation Decade give cause for confidence that, on the basis of the Rio commitments, the right changes can be made, sufficient resources can be mobilized and action programmes can be initiated to bring more effective, appropriate and sustainable progress towards national goals of water and sanitation for all.

Bridging the gap between needs and available funds means change. Six changes will go far towards reaching these targets.

- directing investments towards affordable and environmentally sound approaches to serve the unserved;
- increased efficiency in the use of available funds and mobilizing additional funds from existing and new sources including government and external support agencies, the private sector and consumers;
- mobilizing local communities for self-help;
- pricing water and sanitation services realistically for all users, according to capacity to pay;
- cutting down on the high levels of water wasted in many cities and in agricultural and industrial use; and
- promoting water conservation through recycling and reuse of water, recognising that treated wastewater is a potentially valuable water resource, and combating industrial pollution.

It is also essential that international bodies and governments attach higher priorities to research and development activities directed towards achieving breakthroughs in finding more appropriate water and environmental sanitation technologies.

2.7 Ineffective delivery of water and sanitation services to households and the urgent water scarcity and contamination problems around the world demand an immediate response. Though water supply and sanitation problems vary in their exact nature and manifest themselves primarily at the local and regional levels, they are issues of global concern. Hence, a concerted and coordinated international response is needed to make the most effective use of water and financial resources.

3. ACCORDINGLY, TRANSLATING THESE VIEWS INTO ACTION IN OUR OWN COUNTRIES, OR THROUGH INTERNATIONAL COOPERATION, WE:

3.1 re-emphasise the commitment to implementation of Chapter 18 of Agenda 21, and the crucial role that improved water supply and sanitation programmes will play in health improvement, the protection of freshwater resources and the achievement of sustainable development; urge that water resources management in general, and drinking water and environmental sanitation and education aimed at achieving behavioural change in particular, be given the financial support needed, as vital components in achieving the mutual and multiple benefits of reducing disease, preserving the environment, and stimulating economic and human development; address the issue that although international funding resources in support of feasible water and environmental sanitation projects have increased, there are still factors impeding the flow of resources to the developing countries, and these issues need to be addressed, along with others, in the framework of general discussions on international cooperation;

3.2 encourage the development and implementation of strategies for drinking water and environmental sanitation, at all appropriate levels, including the international level;

- develop these sector strategies in the context of broader strategies for sustainable water resources management and environmental protection and ensure that they are coordinated at national and local level with activities in health, education, agriculture, forestry, industry, energy, urban and rural development, and other relevant sectors, to safeguard the quality and quantity of water resources worldwide;
- 3.3 stress that behavioural change, development of the knowledge base, education of experts, partnership of stakeholders, full commitment of all partners, and capacity building, are essential for success; seek to accelerate moves to develop enabling, supporting and regulatory frameworks which facilitate the maximum involvement of local agencies and individuals in programmes to improve the living environment; seek enhanced priority for institutional strengthening and human resource development programmes which will create organizational and management capacity for local delivery and upkeep of water and environmental sanitation services;
- 3.4 advocate the application of sound economic principles to the allocation and pricing of water, based on the principle that water is a social and economic good, while recognizing that it is a basic human need; seek to make more effective use of available water and financial resources by directing these resources towards projects that best meet the objectives of sustainable development i.e. which are technologically appropriate, economically feasible, environmentally sound and socially acceptable; enable water providers to set equitable tariffs for agricultural, industrial and domestic water, to encourage conservation and efficient use; seek ways in which local communities can be given improved access to financial resources and encouraged to undertake community management of water and environmental sanitation services; encourage potential private sector involvement in financing, constructing, operating and maintaining water and sanitation services; encourage external support agencies, including multilateral and regional development banks, to adopt water and environmental sanitation sector investment guidelines which are consistent with the policy guidance of Chapter 18 of Agenda 21;
- 3.5 to avoid costly future remedial actions, adopt programmes for waste reduction and pollution prevention at the source and for protection of catchment areas to safeguard water supply sources, water quality, aquatic ecosystems, and fisheries and for reducing wastage of water to conserve future resources; implement tariff structures which reduce wastage, increase cost recovery, and prevent pollution, such as progressive block rate fees, sewage and wastewater treatment fees, and fines for non-compliance; supply water to meet new demands by environmentally sound methods, including water conservation, demand management and reuse, particularly in the irrigation sector.
4. WE, THE MINISTERS, THEREFORE:
- 4.1 ENDORSE FOR RAPID EXECUTION THE ATTACHED ACTION PROGRAMME as a further step towards sustainable development of drinking water and environmental sanitation services.

This programme learns from the experience of the International Drinking Water and Sanitation Decade and puts into practice Chapter 18 of Agenda 21. The main lessons are that capacity-building is the key and that we must:

- a. generate public and political awareness of the importance of the imminent water crisis;
- b. set realistic targets on the route to the overall goal of safe water and adequate sanitation for all; have relevant target dates set by governments to execute the Action Programme;
- c. establish more efficient and effective systems for drinking water and environmental sanitation in all our countries;
- d. mobilize the available resources within each country, from users and the private and public sectors and through the "polluter pays" approach, within self-sustaining systems of finance for water supply and sanitation services;
- e. enhance the mobilisation of international financial resources and the transfer of technology to complement and support domestic resources.

The programme also incorporates the new approaches brought about by Agenda 21. We must give special attention to:

- a. the integrated management of water, taking into account all the implications that water has for health, for the environment, for social and economic policy and for spatial planning;
- b. creating partnerships among all stakeholders, which reflect the different needs of men, women and youth and involve all sections of society in resolving the problems that affect them;
- c. modifying patterns of behaviour towards clean water and hygiene, and changing the role of governments, to make the best use of available resources, to enable the integrated management of water at the lowest appropriate level and to move to a system of demand-driven management;
- d. putting into practice the management of water resources as a social and economic good;
- e. searching for innovations, technological and non-technological, to protect our finite and vulnerable water resources and to bridge the gap between the physical, human and financial resources and the escalating demand for water and need for sanitation brought about especially by urbanization and industrialization in the developing world.

IN ADDITION WE:

- 4.2 Note that a meeting of experts on water and health in underprivileged urban areas held in Sophia-Antipolis, France, from 21 to 23 February 1994, has adopted recommendations to be submitted by the participants to the Commission on Sustainable Development at its 2nd session in May, 1994.

- 4.3 Transmit, in view of the special problems of the small island states this Statement and Action Programme for consideration at the United Nations Conference on the Sustainable Development of Small Island Developing States to be held in Barbados from 24 April to 6 May 1994.
- 4.4 Recommend that, in order to prevent a water crisis, there is an urgent need to mobilize, within the framework established by Chapter 33 of Agenda 21, adequate financial resources, through using all available sources and mechanisms and maximizing the availability and smooth flow of additional resources to execute this Action Programme.
- 4.5 Recommend in view of the need to coordinate, concentrate and consolidate the many international activities relevant to drinking water and environmental sanitation, within the context of integrated water resources management:
 - a. consideration of steps to enhance this process, particularly by the Commission on Sustainable Development;
 - b. the strengthening of existing institutions and organizations which are contributing to this goal, in accordance with the Action Programme.
- 4.6 Recommend that this Action Programme be considered for adoption by the Commission on Sustainable Development at its 2nd session in May 1994.

Official version

1. WATER AND PEOPLE - bringing about partnership and behavioural change

As Agenda 21 states, for sustainable development, collaboration is necessary among all partners. The approach to collaboration has to start with an understanding of the real needs of users. Better collaboration will help to improve performance, to resolve conflict and to foster integration.

To enable and support this partnership approach, water supply and sanitation decisions must be based on a dialogue about the attitudes and needs of people in rural and urban communities, and on what they can manage, maintain and pay for. Behaviour at political and governmental level, as well as in the water supply and sanitation sectors, must change as required.

Accordingly, at the appropriate level, governments should:

1. generate public awareness and social mobilization towards drinking water and environmental sanitation by:
 - (a) stimulating mutual understanding by government, local authorities, utility operators, consumers, especially women, youth and other stakeholders of the water problems and the vulnerability of water resources and the aquatic environment;
 - (b) raising awareness among all stakeholders of the fact that water resources are becoming increasingly scarce and that it is necessary to use them in a rational economical way, to instal or improve wastewater treatment systems to prevent pollution of water resources and to adopt appropriate sanitation habits which prevent microbiological pollution;
 - (c) ensuring a basic knowledge about the conservation and use of water, giving priority to health issues;
 - (d) enhancing realisation that water is a social and economic good and has an economic value to which an appropriate pricing policy needs to be applied, including the use of economic instruments;
 - (e) formulating and implementing participatory communication and education programmes aimed at bringing about changes in behaviour patterns, in planning, design, construction, operation and maintenance processes and revenue collection;
 - (f) providing training programmes according to regulated standards for all levels of personnel responsible for management of drinking water, sanitation and waste water treatment in all relevant authorities, reflecting new approaches and principles;

2. improve partnership and participation; therefore taking the following priority actions:
 - (a) encouraging the policy makers, owners, contractors and operators of water supply and environmental sanitation systems to involve local communities, user organisations, women and non-governmental organisations in the planning of, and decision-making procedures about those systems, so as to make use of local knowledge, special skills and different viewpoints;
 - (b) developing the legal and institutional framework to support such participation and partnership;
 - (c) developing plans to build up the capacity of all stakeholders, including the empowerment of communities, in particular the women, through proper training and education at community level, representation of users on Utility Boards, the establishment of Consumer Councils and the development of consultation mechanisms with stakeholders;
 - (d) providing access to information on projects, programmes and policies, recognizing the rights and responsibilities of citizens and communities, and providing accountable, transparent decision-making processes and water quality standards with opportunities for appeal and independent review;

At the regional and international level:

1. develop programmes on the exchange of information and experience, especially on training, education, research, technology and modalities of project design and implementation;
2. seek to ensure that external support agencies support public education and capacity building programmes, implement transparent and accountable decision-making mechanisms within their institutions, and promote public participation in all levels of project design, implementation and management;
3. develop programmes, both at national and international levels, presenting priorities for the water and environmental sanitation sector and develop coordinated action programmes to advocate for the sector at all levels - political, public, technical, and financial;
4. strengthen regional collaboration, especially among countries with comparable problems such as transboundary water resources, or a comparable situation such as that of the small island states;
5. develop concerted programmes at national and international levels in support of sustainable water resources development and environmental sanitation in small island states.

2. WATER, HEALTH AND THE ENVIRONMENT - integrating water policy

As Agenda 21 states, the planning and implementation of drinking water and environmental sanitation programmes should be carried out in the context of an holistic water resources development framework, taking an ecosystem approach to water resources development and management, including the health dimension.

Accordingly, at the appropriate level, governments should:

1. undertake a water resources assessment in order to produce an inventory of the current situation and to identify problems and constraints in providing water supply and environmental sanitation services;
2. develop, review or revise, in the context of a national sustainable development strategy consistent with Agenda 21, measures for water resource management, environmental protection, including drinking water and environmental sanitation, aimed at:
 - (a) a recognition that access to adequate water and environmental sanitation services is a basic human need;
 - (b) the need for conservation and protection of the quantity and quality of water resources, taking into account water quantity and quality requirements for the functioning of ecosystems;
 - (c) an obligation to use water efficiently, taking into account the re-use and recycling of effluents, and disposal of waste in a manner which conserves the environment for the benefit of future generations;
 - (d) a framework for a rational allocation of water among competing uses, including drinking water, industry, agriculture and hydro-power;
 - (e) bringing national water consumption into line with the available resources;
 - (f) supportive policies and policy instruments to support the best possible water use and sustainable management of freshwater resources;
 - (g) recognition of health-related objectives in water supply and sanitation planning.
3. develop, review or revise by 1997 and implement, in the context of a national sustainable development strategy consistent with Agenda 21, measures for drinking water and environmental sanitation, taking into account the goals set by the World Summit for Children, with a view to achieving rational and effective provision and use of drinking water and environmental sanitation; these measures should include:
 - (a) strategies to serve the poor and unserved;
 - (b) investment strategies, including strategies to serve the poor according to their special needs in rural and peri-urban areas;
 - (c) a planning strategy based on an understanding of effective demand and integration of water supply and sewage plans and programmes;
 - (d) a planning strategy for more effective hygiene education;
 - (e) establishing realistic quality standards and criteria for drinking water, for sewage effluent and for recycled water;

- (f) the protection and enhancement of human health through giving priority to populations at greatest risks.
4. involve in the implementation of strategies all stakeholders, such as consumers, non-governmental organisations, scientists, women's organisations, local entrepreneurs, professionals and professional associations;
 5. establish, where it does not yet exist, a nation-wide drinking water and environmental sanitation monitoring system to monitor the efforts on this Action Programme as well as other major objectives, making full use of available open-ended monitoring and information support systems being developed by the existing WHO/UNICEF Water Supply and Sanitation Monitoring Programmes;
 6. establish pricing policies aimed at promoting the efficient use of water, according to the following criteria:
 - (a) affordability at all levels, taking into account health impact considerations;
 - (b) resource conservation through demand management;
 - (c) utilization of the polluter pays principle;
 7. reduce the proportion of water put into the distribution system that is lost and does not serve an end-use, and assess institutional, management, organisational and operational aspects of water agencies to identify the factors affecting the existing levels of unaccounted-for water;
 8. promote the design and use of water-saving and re-use technologies in order to decrease the consumptive uses of water by industries, agriculture and households;
 9. preserve the natural quality of both surface and groundwater, if feasible by a water basin approach, including:
 - (a) maintaining effective watershed management and establishing water protection and sanitary zones adjacent to the sources of drinking water supply with regulations governing special natural resources use and conservation practices to minimize the input of problem substances and other impacts from industry, agriculture and households;
 - (b) preventing nutrient input into groundwater and other water bodies by using the land in accordance with sustainable agricultural practice;
 - (c) applying pesticides properly and in accordance with provisions of legislation; continuously looking for the least harmful pesticides and eliminating those proven to be harmful to surface and ground water; promoting and implementing sustainable agricultural techniques;
 - (d) establishing wastewater treatment plants and the use of recycled water within an environmentally sound system, their planning to be accompanied, where appropriate, by environmental impact assessment;

10. promote the appropriate development and use of non-conventional sources of water supply, such as the safe re-use of effluents, rainwater harvesting, desalination of sea water and brackish groundwater and conservation of traditional sources;
11. strengthen health-data collection and analysis to assist in prioritizing and targeting water and sanitation;
12. promote, where they do not exist, the adoption of appropriate country-specific standards or guidelines on drinking water quality, taking into account the WHO's drinking water guidelines.

At the regional and international level:

1. enhance cooperation in river basin management, transboundary water-resources development and pollution control;
2. promote the transfer of technology, in particular on a regional basis, in the field of loss-reduction strategies, water-saving and re-use technologies;
3. agree on indicators for the state of water resources in relation to their functions and uses.

3. WATER AND INSTITUTIONS - organising service provision

As Agenda 21 states, capacity-building is a fundamental activity to create competent institutions, to provide adequate numbers of qualified staff, to equip all the stakeholders and to enable communities to become full partners in the development of the sector.

Accordingly, at the appropriate level governments should:

1. change the emphasis of the role of governments, as appropriate, as related to water and environmental sanitation services to an enabler and a regulator of other stakeholders by:
 - (a) taking responsibility for organizing monitoring, establishing nation-wide information systems, preparing national drinking water assessments and setting policies and sector guidance;
 - (b) strengthening the role of the government in developing legal frameworks and as a regulator, ensuring effective enforcement of water laws and regulations;
 - (c) taking the responsibility for adequate performance monitoring of activities of all service providers and other stakeholders as appropriate;
 - (d) considering the possibilities of private sector participation (particularly in the operational parts) of water supply and sanitation, with the proviso that, among others, quality, effectiveness, availability at fair prices and the recognition of social concerns are safeguarded by appropriate regulations to protect the users;
2. establish coordinating mechanisms, at the appropriate level, to enhance cross-sectoral collaboration, establish uniform policy, improve planning and foster the sharing of sector relevant information;
3. increase investments in capacity building programmes necessary to create organisational and management capacity at all levels, including institutional strengthening and human resources development with specific attention to gender;
4. identify, support and provide necessary incentives for institutions to become more people-oriented: ownership, decision-making and responsibility for planning and implementation should be brought to the lowest appropriate level nearest to the user;
5. create utilities for water supply and environmental sanitation that can operate autonomously, in particular with respect to financial management, overall management and research, ensuring the sustainability and effectiveness of the services which can progressively attain cost recovery;
6. improve the overall and financial performance of utilities which are more accountable and more transparent to the public, including providing access to information and quality data, and allow for appeal procedures by the public in connection with their decisions;

7. develop or strengthen incentives to ensure the availability of skilled personnel needed for the planning, management and operation of water supply and environmental sanitation systems to:
 - (a) encourage professional and technical education and training;
 - (b) establish career planning and appropriate salary levels to retain technical and professional staff;
 - (c) ensure the publication of the technical material needed to support professional expertise, the efficient management of utilities and the participation of non-governmental organisations;
 - (d) enhance, based on a proper gender analysis, the role of women in planning, management and operation and increase the active involvement of women in decision-making about water and environmental sanitation issues at the micro and macro level;
8. encourage the establishment of multidisciplinary professional associations as major aids to networking, particularly to participate in formulating national standards and to organize the dissemination of know-how on a national basis and to join the international professional associations and profit from their support;
9. stimulate by 1998 the development of key indicators, other than coverage, such as indicators relating to health, environmental impact and behaviour of users;
10. establish or strengthen domestic resource centres, including domestic institutions for information collection and dissemination, applied research and technical support for monitoring;
11. strengthen the appropriate health institutions which, in coordination with water and sanitation authorities, implement hygiene education and support community involvement;

At the regional and international level:

1. promote information exchange and networking among sector professionals, professional associations and non-governmental organisations, including twinning arrangements;
2. promote effective collaboration with neighbouring countries in the management of transboundary water resources;
3. promote regional exchange of experience on institutional reform;
4. strengthen regional cooperation that enhances non-governmental organisations capacity and involvement in drinking water and environmental sanitation, in order to improve programme planning, management and implementation.

4. WATER AND MOBILIZING FINANCIAL RESOURCES - building assets for the future

As Agenda 21 states, in order to enable drinking water supply and environmental sanitation facilities to operate on an economically sound basis, it is crucial to aim for the most efficient and effective use of the available funds, particularly in view of the increasing global demand for drinking water and environmental sanitation and the trend towards decreasing availability of external funds for the sector.

Accordingly, at the appropriate level, governments should:

1. ensure equitable and efficient financial management of water supply and environmental sanitation systems by:
 - (a) progressively devolving decision-making and management down to the lowest appropriate level, having sufficient qualified staff;
 - (b) as soon as possible, organizing a tariff system in such a way (cross-subsidization), or setting prices at such a level, that water supply and environmental sanitation organisations can operate autonomously in financial terms without this impacting adversely on the basic supply to the most needy;
 - (c) in the light of the potential impacts on the poor, enabling them to benefit from the changes envisaged;

2. develop detailed guidelines for investments in the drinking water and environmental sanitation sector in order to rationalise resource generation and use, aimed at, amongst other things:
 - (a) ongoing provision of water and environmental sanitation for domestic use to all sectors of society;
 - (b) minimizing subsidies, but taking into account special needs of the most needy to assure their access to safe water;
 - (c) encouraging mutually beneficial investments, whereby money is saved, the position of the user is improved and the environment is protected;
 - (d) targeting investment priorities at cost-effective, affordable and appropriate technology;
 - (e) phasing out inappropriate technology;
 - (f) rehabilitation and maintenance of existing water supply and environmental sanitation systems;
 - (g) giving priority to more and sufficient investments in water supply and environmental sanitation, particularly in urban and peri-urban areas, including both physical facilities and education to promote better personal/family hygiene and the best use of water supply and environmental sanitation;

3. explore and develop new, innovative financing mechanisms, including private funding and harnessing of local resources to the maximum extent possible;

4. stimulate integrated approaches including income-improving activities for the peri- and semi-urban and rural poor, through mechanisms for access to credit, land distribution and security of land tenure, so as to reduce the need for subsidies;
5. encourage tariff systems, in different socio-economic settings, in different service demand settings and through different collection mechanisms, with a view to introducing cost recovery into water supply and environmental sanitation programmes and in particular with a view to charging the user for the costs of environmental sanitation (either by incorporating this factor into drinking water prices or in some other way);
6. study and promote more efficient use and re-use of water by means of economic incentives and including environmental costs into prices for drinking water and water used for other purposes;
7. study the possibilities of re-using treated waste water for agriculture or as a supplementary water resource;
8. accept temporary variations in the level of service provided in different areas so as to achieve the greatest possible coverage as early as possible, and then improve those levels to a uniform level as resources permit;
9. emphasize the importance of operational and maintenance considerations being incorporated into the design of projects.

At the international level it is urged that:

1. the external support agencies, including the World Bank and regional banks, give priority, as appropriate, to projects aimed at more extensive coverage, both in drinking water supply and in environmental sanitation and to projects which tend to at least maintain the existing coverage, with economic and appropriate technology considerations;
2. consideration is given to debt swap as a mechanism to generate funds to the sectors;
3. discussion is encouraged on the 20/20 approach, as initially proposed by UNDP and UNICEF, by which 20 percent of official development assistance (ODA) and 20% of domestic budgetary resources are devoted to social development, including drinking water and sanitation.

5. WATER AND THE WORLD - promoting international support

In order to facilitate the implementation of national activities, the international community is urged to:

1. support country-level collaboration as an essential tool for the successful preparation of sector strategies and social mobilisation initiatives;
2. give special consideration to assisting countries that have developed or are developing national strategies for water resources management that incorporate the views of stakeholders and fully consider the ecosystems and socio-economic structures;
3. focus on needy areas, recognizing that special attention should be given to Africa;
4. stress the role and importance of international organizations and bilateral cooperation in supporting capacity building programmes in developing countries and request the Executive Board of UNDP to consider in the context of UNDP Capacity 21 Programme, a water and sanitation component;
5. request the UN Commission on Sustainable Development to consider how existing institutions can provide regional clearing-houses for the exchange of data and information and how to strengthen the role of development cooperation and other support funds for drinking water and environmental sanitation;
6. renew collaborative mechanisms towards support of increasing regional initiatives like SAARC, OAU, ASEAN, LAC, and promote joint collaboration in achieving goals;
7. promote and stimulate the role of, and the interest shown by, UN Regional Commissions in the field of water and environmental sanitation, without prejudging the outcome of the ongoing decentralization process under the responsibility of the Secretary-General;
8. promote and support national actions:
 - aimed at bringing about changes in behaviour patterns; and
 - regarding roles of communities, government and other stakeholders.

Furthermore it is recommended that:

9. future international conferences, such as the World Summit for Social Development, the Conference on Population and Development, the Fourth World Women's Conference, HABITAT II and others, address relevant water resources development and management issues, and in particular those related to water supply and environmental sanitation and the health dimension of water quality;

10. the UN Commission on Sustainable Development, at its 1997 review, should assess progress in the implementation of the recommendations of Agenda 21 concerning drinking water and environmental sanitation;
11. the UN system continues to undertake a scientific global water resource assessment including projections of water needs and availability;
12. recognizing the positive contribution of the Water Supply and Sanitation Collaborative Council as a global forum and a partnership among professionals from countries and from external support agencies, non-governmental organisations, professional associations and information, research and academic institutions, assistance is provided for strengthening the Council and enhancing its advocacy role;
13. in order to prevent a water crisis, there is an urgent need to mobilize, within the framework established by Chapter 33 of Agenda 21, adequate financial resources, through using all available sources and mechanisms and maximizing the availability and smooth flow of additional resources to execute this Action Programme;
14. the UN Commission on Sustainable Development, at its second session, considers the need to strengthen the existing mechanism for the coordination of activities of the UN system in the field of water resources with a view to help implementing the Action Programme adopted by this Conference, taking into account the primary responsibility of the Secretary-General for interagency coordination; and that the Commission on Sustainable Development recommends ECOSOC to consider this issue at its coordination segment in 1995;
15. international professional associations such as IWSA and IAWQ stimulate the establishment and development of national professional associations;

International support agencies are invited to:

16. assess the degree to which their programmes effectively facilitate:
 - (a) the integrated management of water resources,
 - (b) the strengthening of national institutions;
17. develop programme delivery and loan mechanisms which need to take into account the water supply and environmental sanitation crisis;
18. encourage the Water Supply and Sanitation Collaborative Council, in association with interested public bodies and non-governmental organisations concerned, to undertake necessary studies toward strengthening its activities and when appropriate, to take necessary steps for expanding its activities or establishing itself as a more comprehensive world water forum or Council involving the various aspects of water sector, and also encourage the Council to submit its report to its members by April 1995 on any progress achieved on this issue.

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Head of Country Delegation

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ANTIGUA & BARBUDA	Dr. Rodney Williams Minister of Education, Youth, Sports and Community Development
ARGENTINA	Mr. M. De Marco Naón Presidente of the National Institute of Science and Technical Hydraulics
AUSTRALIA	Mr. Michael Tate Ambassador of Australia
AUSTRIA	Mr. Wilfried Schimon
BELARUS	Mr. Valeri Filonov Deputy Minister of Health
BENIN	Mr. Jean-Roger Ahoyo Minister for Environment, Communities and Spatial Planning
BHUTAN	Mr. Gasey Lhendup Acting Minister of Communications
BOLIVIA	Mr. Jorge E. Lorini Saenz Minister for Urban Health
BOTSWANA	Mr. Archebald M. Mogwe Minister of Mineral Resources and Water Affairs
BRAZIL	Mr. Affonso Arinos de Mello-Franco Ambassador to the Netherlands
BURKINA FASO	Mr. B.T. Paré Secretary-General of the Ministry for Water
CANADA	Mr. Paul de Villers MP - Environment Committee

CHILE	Mr. Hernán Herrera Russell Subgerentia de Empresas de Servicios Sanitarios Corporación de Fomento de la Producción
CHINA	Mr. Li Zhendong Vice Minister of Construction
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CZECH REPUBLIC	Mr. J. Vytlačil Vice Minister of Health
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GERMANY	Mr. K. Töpfer Federal Minister for the Environment
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GREECE	Mrs. E. Papazoi Deputy Minister of the Environment
GUINEE	Mr. Toumany Dakoum Sakho Minister of Natural Resources, Energy and the Environment
GUINEA-BISSAU	Mr. Joao Gomes Cardoso Minister of Natural Resources and Industry

HUNGARY	Mrs. Anna Tarján State Secretary Ministry for Environment and Regional Policy
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INDONESIA	Mr. Ir. Aca Sugandhy Apandi Assistant Minister of State for Environment
IRELAND	Mr. Ray Dollard Principal Officer Department of the Environment
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ITALY	Mr. Lorenzo Villa
JAMAICA	Mr. Rudyard Lawson Minister of State Ministry of Water and Transport
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JORDAN	Mr. Ahmmad Al-Akayleh Minister of Municipal and Rural Affairs and the Environment
KENYA	Mr. A. Ligale Assistant Minister of Land Reclamation, Regional and Water Development
MALAWI	Hon. J.R. Kanjere Minister for Works
MEXICO	Ing. Romarico Arroyo Marroquin Subdirector National Water Commission
MOROCCO	Mr. Mohamed Hassad Minister of Public Works, Profesional Education and Public Services

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SWEDEN	Mr. Olaf Johansson Minister of Environment and Natural Resources
SWITZERLAND	Mr. Alfred Rüegg Ambassador of Switzerland
TANZANIA	Hon. Juma H. Omar Minister for Tourism, Natural Resources and Environment
TUNESIA	Mr. Mohamed Mehdi Mlika Minister of Environment
TURKEY	Mr. Ozger Akad Undersecretary Ministry of Environment
UNITED KINGDOM	Mr. R. Atkins Minister for the Environment and Countryside
U.S.A.	Mr. Timothy Wirth Counsellor US Department of State
UZBEKISTAN	Mr. K. Askhad Chairman of the State Committee for Nature Protection
YEMEN	Eng. Mohamed A. Alfusail Chairmam National Water and Sanitation Authority
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**Prof. W.A. Segeren
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IRC

**Mr. H. Scheltema
Chairperson**

IWSA

**Mr. Alf Rustad
President**

WSSCC

**Ms. Margaret Catley-Carlson
Chairperson**

DOCUMENTATION FOR THE CONFERENCE

- 1 Background doc 1: "Putting Agenda 21 to Work"
- 2 Background doc 2: "Achievements and Challenges"
- 3 Background doc 3: "Policy/strategy for action: Effectiveness"
- 4 Background doc 4: "Policy/strategy for action: Finance"
- 5 Background doc 5: "Policy/strategy for action: Collaboration"
- 6 Background doc 6: "Policy/strategy for action: Synthesis"
- 7 "The Sofia Antipolis Recommendations",
Round Table on Water and Health in underprivileged urban areas, February 21-23
1994, Sofia Antipolis, France.
- 8 "Financing of Freshwater for Sustainable Development", CSD Intersessional Ad Hoc
Open-Ended Working Group on Finance, Feb. 28 - March 2, 1994.

MISE EN PLACE DE L'ACTION 21 DE LA CNUED

**Conférence Ministérielle sur l'Eau Potable et
l'Assainissement de l'Environnement
22 et 23 mars 1994, Noordwijk, Pays-Bas**

**DECLARATION POLITIQUE
PROGRAMME D'ACTION**

MISE EN PLACE DE L'ACTION 21 DE LA CNUED
Conférence Ministérielle sur l'Eau Potable et l'Assainissement
de l'Environnement
22 et 23 mars 1994, Noordwijk, Pays-Bas

Nous, Ministres¹, nous réunissons à Noordwijk, Pays-Bas, les 22 et 23 mars 1994, à l'occasion de la Conférence Ministérielle sur l'Eau Potable et l'Assainissement, et après avoir examiné le sujet sur la base des documents de la Conférence mentionnés en annexe, et en avoir débattu,

1. REAFFIRMONS QUE;

Notre tâche consiste à trouver les moyens d'aider nos gouvernements à mettre en oeuvre le Chapitre 18 de l'Action 21.

1.1 Dans cette optique, nous insistons sur la nécessité de procéder à l'intégration de la gestion des ressources en eau. Selon les termes du Chapitre 18, il convient de:

- gérer de façon holistique l'eau douce en tant que ressource limitée et vulnérable, et de procéder à l'intégration de plans et de programmes sectoriels relatifs à l'eau au sein des cadres qu'offrent les différentes politiques sociales et économiques nationales.
- envisager l'eau comme faisant partie intégrante de l'écosystème, comme étant une ressource naturelle et un bien social et économique dont la quantité et la qualité déterminent la nature de son utilisation.

1.2 Dans le contexte spécifique de l'eau potable et de l'assainissement de l'environnement, nous attirons l'attention sur la nécessité énoncée dans le Chapitre 18 et identifiée lors de la Consultation Mondiale sur l'Eau Potable et l'Assainissement pour les Années 1990, tenue à New Delhi en 1990, de garantir durablement l'accès à une eau salubre en quantités suffisantes et à un assainissement approprié, en insistant sur l'approche selon laquelle "il vaut mieux que tout le monde ait un peu, plutôt que quelques uns bénéficient de beaucoup"; aux termes du Chapitre 18, les gouvernements s'engagent à mettre en oeuvre les quatre principes directeurs de New Delhi:

- protection de l'environnement et préservation de la santé par une gestion intégrée des ressources en eau et des déchets solides et liquides;
- réformes institutionnelles en faveur d'une approche intégrée et incluant des modifications de procédure, de mentalité et de comportement, ainsi que la participation à part entière des femmes à tous les niveaux institutionnels du secteur;
- encouragement de la gestion des services par les communautés locales grâce à des mesures d'aide aux institutions locales dans l'application des programmes

¹ Consulter l'Annexe 1 pour la liste des pays et organisations représentées à la Conférence.

durables d'approvisionnement en eau et d'assainissement;

- adoption de pratiques financières judicieuses grâce à une meilleure gestion des avoirs existants, et à l'utilisation généralisée de techniques appropriées;

1.3 En ce qui concerne les mécanismes de mise en oeuvre des programmes basés sur lesdits principes, le Chapitre 18 insiste sur la nécessité de:

- créer des capacités à tous les niveaux administratifs en y incluant le développement institutionnel, la coordination, les ressources humaines, la participation des communautés, la santé, l'hygiène et la lutte contre l'analphabétisme qui constitue l'une des clés de la mise en oeuvre des stratégies;
- identifier par quels moyens il est possible de financer les coûts substantiels mis en jeu;
- adopter des technologies satisfaisant aux besoins et contraintes imposés par la communauté concernée.

2. RECONNAISSONS QUE:

De nombreux pays font face à une crise de l'eau.

2.1 La croissance explosive des centres urbains, l'impossibilité d'exploiter à l'infini les ressources naturelles, l'industrialisation non contrôlée, la demande croissante en eau pour la production vivrière, la croissance démographique sans assainissement judicieux de l'environnement, sont autant de facteurs ayant entraîné le tarissement progressif et la dégradation des ressources d'eau douce. Il n'est pas possible de continuer à appliquer bon nombre des scénarios actuels d'utilisation de l'eau. Les frais croissants liés à l'exploitation de ressources en eau douce toujours plus éloignées, mettent en péril le développement économique alors que les effets visibles - comme ceux qui le sont moins - de l'élimination irréfléchie des déchets et d'un assainissement de l'environnement inopportun répandent la misère, la maladie et la mort. La rareté de l'eau et les tensions qu'elle engendre, particulièrement dans le cas de rivalités quant au contrôle de l'eau lorsqu'elle se trouve de part et d'autre d'une frontière, font peser des menaces potentielles sur la paix.

2.2. La détérioration rapide de la qualité de l'eau et la disponibilité moindre des ressources en eau douce sont directement affectées par des processus naturels et des activités humaines. Pour sauvegarder durablement l'approvisionnement en eau potable salubre et l'intégrité des bassins hydrographiques, une action concertée est nécessaire sur tous les fronts y compris l'agriculture, la sylviculture, les transports, l'industrie, l'urbanisme, l'aménagement du territoire, la planification démographique et la production d'électricité. Bien que les villes soient

de plus en plus considérées comme le théâtre du progrès social et de la croissance économique, des millions de citoyens ne peuvent accéder à une eau salubre et à un assainissement suffisant. Il y a extrême urgence quant au besoin d'étendre durablement la couverture en eau et en services d'assainissement aux déshérités des villes.

Pour répondre au moins aux besoins fondamentaux en matière d'eau et d'assainissement, la crise peut et doit être résolue.

2.3. Les engagements pris par les gouvernements dans le Chapitre 18 de l'Action 21 laissent entrevoir un nouvel espoir aux millions de leurs citoyens endurent l'intolérable souffrance de la maladie, de la misère et des conditions de vie indignes du simple fait qu'ils ne bénéficient pas d'un approvisionnement sûr en eau potable ni de moyens d'assainissement suffisants. Les chiffres moyens de la mortalité infantile quotidienne - soit six mille enfants par jour - imputables au manque d'eau salubre et d'assainissement de l'environnement, nous rappellent de façon tragique l'urgence avec laquelle il convient de mettre en pratique les engagements de Rio et du Sommet Mondial de l'Enfance et d'amorcer une action positive et concertée.

2.4 L'objectif à long terme demeure: "eau salubre et assainissement de l'environnement pour tous". L'accès à l'eau en quantité suffisante et à un assainissement moyennant des coûts abordables, constitue un besoin fondamental auquel il est impératif de satisfaire. A cet objectif est assortie une obligation d'utiliser l'eau de façon efficace et d'éliminer les déchets dans le respect de l'environnement et au profit des générations futures. Il s'agit là d'une condition sine qua non si l'on désire progresser vers les objectifs collectifs: santé pour tous, soulagement de la misère, préservation de l'environnement et développement économique et humain. Pour atteindre ces objectifs, les programmes en matière d'eau et d'assainissement de l'environnement doivent être à la mesure des possibilités environnementales locales, des conditions et besoins socio-économiques et culturels locaux ainsi que de la disponibilité des ressources. Il convient à cet égard de prendre en compte les divergences au niveau des besoins, des travaux, de l'influence des hommes et des femmes ainsi que des avantages qu'ils en retirent.

Il est nécessaire de changer; il n'est plus possible de poursuivre sur la voie du laisser-faire.

2.5. La Décennie Internationale de l'Eau Potable et de l'Assainissement (1981-1990) s'est soldée par un accroissement proportionnel de la couverture, mais n'a eu qu'un effet marginal sur la réduction du nombre total des personnes non desservies. Les principales raisons expliquant ce fait sont: l'accroissement démographique, le manque de soutien politique, la participation insuffisante de la société et la confiance excessive dans les projets infrastructurels de grande envergure et coûteux,

particulièrement dans les zones urbaines, les déficiences au niveau de l'exploitation et de l'entretien des systèmes installés, et, dans un certain nombre de cas, le manque d'attention accordée aux approches de petite échelle et moins onéreuses qui pourraient se révéler plus adéquates que les projets infrastructurels de grande envergure. Dans de nombreux pays, l'assainissement, la communication et l'éducation en matière d'hygiène, sans lesquelles les modifications de comportement ne sauraient être et étant nécessaires pour tirer le maximum de bénéfices des améliorations de l'approvisionnement en eau, demeurent des priorités de moindre importance.

La Décennie a appris à tous les intéressés que les programmes en matière d'eau et d'assainissement de l'environnement doivent s'appuyer sur des partenariats associant toutes les parties impliquées (les usagers - surtout les femmes - les associations collectives locales, les gouvernements nationaux, régionaux et centraux, les agences et organismes des secteurs public et privé, les organisations non gouvernementales). Le rôle des gouvernements est de mettre en place le cadre réglementaire et de soutien nécessaire. Il s'agit à cet égard de fixer et de mettre en application des normes relatives à l'eau potable et aux effluents, d'apporter le soutien nécessaire, aux niveaux appropriés, afin de permettre aux partenariats locaux d'offrir des services à l'échelle locale correspondant aux besoins des utilisateurs - en particulier les femmes - et à la mesure dans laquelle ils sont prêts à en supporter les coûts, et facilitant la répartition équilibrée entre contributions, influence et avantages. Les organismes financiers nationaux et des Agences de soutien externe ont un rôle-clé à jouer dans le soutien de stratégies venant en aide aux personnes défavorisées. Celles-ci devraient être rentables, se baser sur les besoins collectifs réels, et protéger les écosystèmes aquatiques en situation critique ainsi que les zones de captage des eaux.

Il nous faut utiliser nos ressources - humaines, en eau et financières - de façon plus efficace.

2.6 A la lueur des leçons tirées de la Décennie internationale de l'Eau potable et de l'Assainissement (1981-1990), on est en droit d'espérer, sur la base des engagements de Rio, que des modifications judicieuses pourront être apportées, que des moyens suffisants pourront être mobilisés, et que des programmes d'action pourront être amorcés pour progresser de façon plus efficace, plus durable et financièrement plus supportable sur la voie des objectifs nationaux: "eau et assainissement pour tous". Comblar l'écart entre les besoins et les fonds disponibles est synonyme de changements; ceux-ci sont au nombre de six et contribueront dans une large mesure à atteindre ces objectifs:

- . orienter les investissements sur des approches sans risques et abordables pour servir les démunis;
- . utiliser plus efficacement les fonds disponibles et mobiliser des fonds supplémentaires à partir des

- sources tant existantes que nouvelles, sans oublier les agences gouvernementales et les consommateurs;
- . inciter les communautés locales à mettre en oeuvre leurs propres programmes d'aide;
- . fixer le prix de l'eau et des services d'assainissement de manière réaliste pour l'ensemble des utilisateurs en fonction de leurs possibilités financières;
- . réduire les quantités importantes d'eau gaspillée dans de nombreuses villes et dans les secteurs agricole et industriel; et
- . promouvoir la conservation de l'eau par le recyclage et la réutilisation de l'eau en reconnaissant que les eaux usées constituent, une fois traitées, une ressource potentielle en eau non négligeable, et combattre la pollution industrielle.

Il est également essentiel que les organisations internationales et les gouvernements accordent une plus grande priorité aux activités de recherche et de développement visant à atteindre des résultats constructifs et à mettre au point des technologies de l'eau et d'assainissement de l'environnement plus adéquates.

- 2.7 L'inefficacité du mode d'approvisionnement de l'eau et de l'assainissement tels qu'en bénéficient actuellement les ménages, ainsi que l'urgence des problèmes de pénurie et de contamination de l'eau à travers le monde, exigent une réaction immédiate. Quoique les problèmes d'approvisionnement en eau et d'assainissement varient quant à leur nature exacte et se manifestent avant tout aux niveaux local et régional, ils n'en demeurent pas moins des thèmes à la portée véritablement mondiale. Aussi convient-il de réagir sur le plan international de façon concertée et coordonnée pour utiliser le plus efficacement possible l'eau et les moyens financiers.

3. EN VERTU DE QUOI, AFIN DE METTRE EN OEUVRE CES INTENTIONS DANS NOS PROPRES PAYS, ET PAR LA COLLABORATION INTERNATIONALE, NOUS:

- 3.1. insistons à nouveau sur l'obligation de mettre en oeuvre l'Action 21 et sur le rôle crucial que les programmes améliorés d'approvisionnement en eau et d'assainissement sont appelés à jouer dans la protection des ressources en eau douce et dans la réalisation d'un développement durable; insistons sur le fait que la gestion des ressources en eau douce, en général, et l'eau potable, l'assainissement de l'environnement et l'éducation en faveur des modifications des comportements, en particulier, doivent bénéficier de toute l'aide financière nécessaire en tant qu'instruments vitaux dans la réalisation des avantages - nombreux et interactifs - découlant du recul de la maladie, de la préservation de l'environnement et de la stimulation du développement économique et humain; nous pencherons sur le fait que, malgré l'augmentation des fonds internationaux venant en aide aux projets réalisables relatifs à l'eau et à l'assainissement de l'environnement,

il existe encore des facteurs gênant le flux des ressources vers les pays en voie de développement; il conviendra enfin de se pencher, entre autres, sur ces thèmes dans le cadre de débats généraux sur la coopération internationale;

- 3.2 encouragerons le développement et la mise en oeuvre - à tous les niveaux opportuns y compris au niveau international - de stratégies sur les thèmes de l'eau potable et de l'assainissement de l'environnement; ferons en sorte que ces stratégies sectorielles dans le cadre de stratégies plus vastes de gestion durable des ressources en eau et de protection de l'environnement, coordonnées aux niveaux national et local, et qu'elles soient flanquées d'activités dans les domaines de la santé, de l'éducation, de l'agriculture, de la sylviculture, de l'industrie, de l'énergie, du développement urbain et rural et des autres secteurs concernés afin de sauvegarder dans le monde entier la qualité et la quantité des ressources en eau;
- 3.3 soulignons l'importance des modifications de comportement ainsi que la création de bases de connaissances et la formation d'experts, l'implication à part entière des parties concernées et la constitution de capacités, jouant tous un rôle essentiel dans l'obtention des succès futurs; chercherons à accélérer les démarches entreprises dans le but d'établir les cadres réglementaires, de soutien et créateurs d'opportunités appelés à faciliter l'implication maximale d'agences locales et de particuliers dans les programmes visant à améliorer le cadre de vie; nous efforcerons d'accorder une priorité accrue aux programmes destinés à renforcer les institutions et à développer les ressources humaines pour disposer, au niveau local, de capacités d'organisation et de gestion des services de distribution de l'eau et d'entretien des moyens d'assainissement de l'environnement;
- 3.4 préconisons l'application de principes économiques sains pour l'affectation et la tarification des ressources en eau, étant entendu que l'eau est à la fois un bien économique et social et en reconnaissant qu'elle est un besoin humain fondamental; chercherons à utiliser plus efficacement les ressources disponibles en eau et les moyens financiers, en rentabilisant et en transférant des investissements sur des projets répondant de façon optimale aux objectifs de développement durable, c'est à dire techniquement adéquats, économiquement réalisables, respectant l'environnement et socialement acceptables; permettrons aux fournisseurs d'eau de fixer des tarifs équitables pour l'eau destinée à des fins agricoles, industrielles et domestiques, afin d'encourager la conservation et une utilisation rentable de l'eau; rechercherons les moyens permettant de donner aux communautés locales un meilleur accès aux moyens de financement et de les inciter à la gestion collective de l'eau et de l'assainissement de l'environnement; encouragerons les acteurs potentiels du secteur privé à s'investir dans le financement, la construction, l'exploitation et la maintenance de l'eau et des

équipements d'assainissement; encouragerons les Agences de soutien externe, y compris les banques de développement multilatéral et régional, à adopter en matière d'investissements dans le secteur de l'eau et de l'assainissement de l'environnement des directives en harmonie avec celles du Chapitre 18 de l'Action 21.

- 3.5 adopterons, afin d'éviter de futures actions de remédiation coûteuses, des programmes de réduction des déchets et de prévention de la pollution à la source pour conserver et protéger les sources d'approvisionnement en eau, la qualité de l'eau, les écosystèmes aquatiques et les pêcheries, et réduire le gaspillage d'eau en vue de conserver les ressources futures; mettrons en place des structures tarifaires équitables pour réduire le gaspillage, accélérer le recouvrement des sommes dues et prévenir la pollution en augmentant, par exemple, les redevances forfaitaires par paliers de consommation successifs, les redevances au titre du traitement des eaux usées et les amendes pour infraction aux règlements; assurerons un approvisionnement en eau tel qu'il permette de faire face à la nouvelle demande en appliquant des méthodes respectant l'environnement, à savoir la conservation de l'eau, sa réutilisation et la gestion de la demande en eau, en particulier en ce qui concerne l'irrigation;

4. EN VERTU DE QUOI, NOUS, MINISTRES:

- 4.1 PRECONISONS L'EXECUTION RAPIDE DU PROGRAMME D'ACTION FIGURANT EN ANNEXE pour progresser vers un développement durable des services d'eau potable et d'assainissement de l'environnement.

Ce programme tire les enseignements de la Décennie Internationale de l'Approvisionnement en Eau Potable et de l'Assainissement et applique le Chapitre 18 de l'Action 21. Les plus importants d'entre eux sont que la création de capacités est décisive et qu'il nous faut:

- a. faire prendre conscience au public et aux politiques de l'importance de la crise de l'eau imminente;
- b. définir des cibles réalistes sur la voie des objectifs globaux consistant à fournir une eau salubre et un assainissement suffisant pour tous; demander aux gouvernements de fixer des dates-cibles auxquelles doit être exécuté le Programme d'Action;
- c. élaborer, dans tous nos pays, des systèmes d'approvisionnement en eau potable et d'assainissement de l'environnement plus efficaces et plus rentables;
- d. mobiliser les ressources disponibles de chaque pays en faisant appel aux utilisateurs et aux secteurs public et privé et en abordant le problème selon le principe: "les pollueurs sont les payeurs", dans le cadre de systèmes de financement autonomes de l'approvisionnement de l'eau et des services d'assainissement;
- e. améliorer la mobilisation des ressources financières internationales et le transfert de technologie dans le but de compléter et de soutenir les ressources

nationales.

Le programme comprend également de nouvelles approches mises en exergue par l'Action 21. Il nous faut accorder une attention particulière à:

- a. la gestion intégrée de l'eau, en tenant compte de tout ce que l'eau peut signifier pour l'environnement, la politique économique et sociale et l'aménagement du territoire;
- b. la création de partenariats entre toutes les parties impliquées, reflétant les divers besoins des hommes, des femmes et des jeunes et intéressant tous les groupes sociaux à la résolution des problèmes auxquels ils sont confrontés;
- c. la modification des scénarios comportementaux au profit d'une eau propre et de l'hygiène, et la modification du rôle des gouvernements afin de faire le meilleur usage possible des ressources disponibles, de rendre possible l'intégration de la gestion de l'eau au niveau le plus bas et de progresser vers un système de gestion modulable en fonction de la demande;
- d. la mise en pratique de la gestion des ressources en eau en tant que bien économique et social;
- e. la recherche d'innovations, technologiques et autres, afin de protéger les ressources limitées et vulnérables dont nous disposons et de combler l'écart entre les ressources physiques, humaines et financières, et la demande croissante en eau ainsi que les besoins en assainissement résultant de l'urbanisation et de l'industrialisation que connaissent les pays en développement.

PAR AILLEURS, NOUS:

- 4.2 Prenons note que des recommandations ont été adoptées lors d'une réunion d'experts de l'eau et de la santé en zones urbaines défavorisées, tenue à Sophia-Antipolis, France, du 21 au 23 février 1994, dans le but d'être soumises par les participants à la Commission de Développement Durable lors de sa deuxième réunion en mai 1994.
- 4.3 Transmettons, eu égard aux problèmes spécifiques des petits états insulaires, la présente Déclaration et le Programme d'Action y afférent et les soumettons à la Conférence des Nations Unies sur le Développement Durable des Petits Etats Insulaires en Développement devant se tenir à la Barbade du 26 avril au 6 mai 1994.
- 4.4 Recommandons, en vue de prévenir la crise de l'eau, de mobiliser de toute urgence, au sein du cadre institué par le Chapitre 33 de l'Action 21, les fonds supplémentaires nécessaires en faisant appel à toutes les sources et à tous les mécanismes disponibles, et d'optimiser la disponibilité et le flux des ressources supplémentaires afin de mener à terme le présent Programme d'Action.
- 4.5 Recommandons, dans l'optique de la coordination, concentration et consolidation des nombreuses activités

internationales relatives à l'eau potable et à l'assainissement de l'environnement et nécessaires dans le cadre de la gestion intégrée des ressources en eau:

- a. l'étude, en particulier par la Commission de Développement Durable, des démarches visant à améliorer ce processus;
- b. le renforcement des institutions et des organisations existantes contribuant à atteindre ce but conformément aux termes du Programme d'Action.

4.6 Recommandons que le présent Programme d'Action soit soumis à l'approbation de la Commission de Développement Durable lors de sa deuxième réunion en mai 1994.

1. L'EAU ET LES HOMMES -
créer des partenariats et induire des changements de
comportement.

Comme indiqué dans l'Action 21, le développement durable n'est possible qu'à la condition d'une collaboration entre tous les partenaires. L'approche de cette collaboration commence par la compréhension des besoins réels des utilisateurs. En améliorant la collaboration, il sera possible d'obtenir de meilleurs résultats, de résoudre les conflits d'intérêts et de stimuler l'intégration.

Les décisions ayant trait à l'approvisionnement et l'assainissement devraient résulter d'un dialogue sur les attitudes et besoins des individus dans les communautés urbaines et rurales, ainsi que sur ce qu'ils sont en mesure de gérer, d'entretenir et de payer. Les comportements aux niveaux gouvernemental et politique, ainsi que dans les secteurs de l'approvisionnement et de l'assainissement de l'eau, doivent eux aussi changer afin de permettre et de soutenir cette approche par le partenariat.

Aussi les gouvernements devraient-ils, là où ceci s'avère judicieux:

1. sensibiliser l'opinion publique et générer une mobilisation sociale en faveur de l'eau potable et de l'assainissement de l'environnement en:
 - (a) stimulant la compréhension mutuelle du problème de l'eau et de la vulnérabilité des ressources en eau et de l'environnement aquatique entre le gouvernement, les autorités locales, les compagnies de distribution, les consommateurs, en particulier les femmes, et les autres parties concernées;
 - (b) faisant plus amplement prendre conscience à tous les intéressés du fait que les ressources en eau se font de plus en plus rares et qu'il est nécessaire d'en faire une utilisation économique rationnelle et d'installer ou des systèmes de traitement des eaux usées, ou procéder à leur amélioration, pour empêcher la pollution des ressources en eau, et d'adopter des habitudes d'hygiène appropriées à des fins de prévention de la pollution bactériologique;
 - (c) assurant des connaissances fondamentales sur la conservation et l'utilisation de l'eau en accordant la priorité aux thèmes relatifs à la santé;
 - (d) faisant prendre davantage conscience que l'eau est un bien économique et social, qu'elle a une valeur économique pour laquelle il convient d'élaborer une politique de fixation des prix adéquate en faisant jouer les instruments économiques;
 - (e) formulant et en mettant en oeuvre des programmes participatifs d'enseignement et de communication visant à induire des changements de scénarios comportementaux, de planification, de conception et de construction, d'exploitation et de processus de

- maintenance;
- (f) proposant des programmes de formation selon des normes réglementées destinés au personnel responsable, à tous les échelons, de l'assainissement de l'eau et du contrôle du traitement des eaux usées auprès de toutes les autorités compétentes, et reflétant les nouvelles approches et les nouveaux principes;
2. améliorer le partenariat et la participation; pour ce faire des points suivants des actions prioritaires:
- (a) en encourageant les décideurs, les propriétaires, les entrepreneurs et les exploitants de systèmes d'approvisionnement en eau et d'assainissement de l'environnement, à associer les collectivités locales, les organisations de consommateurs, les femmes et les organisations non gouvernementales à la planification de ces systèmes et aux procédures de prise de décisions y afférentes, et à faire appel à la connaissance du terrain, aux compétences particulières et à prendre en compte les divers points de vue;
 - (b) en créant le cadre légal et institutionnel du soutien à ce type de participation et de partenariat;
 - (c) en élaborant des plans de constitution de capacités pour toutes les parties impliquées, en donnant aux collectivités les moyens d'agir, en particulier aux femmes, par le biais de la formation et d'une éducation judicieuse de la collectivité entière, en représentant les utilisateurs au sein des conseils d'administration des sociétés de distribution, en instituant des Conseils de consommateurs et en mettant au point des mécanismes de consultation avec les parties impliquées;
 - (d) en permettant l'accès aux informations sur les projets, programmes et politiques, en reconnaissant les droits et les responsabilités des individus et des communautés, et en établissant des processus de prise de décisions transparents et responsables assortis de possibilités de recours et de révision indépendante;

Aux niveaux régional et international:

1. développer des programmes d'échange d'information et d'expérience, en particulier en matière de formation, d'enseignement, de recherche, de technologies et de modes de planification et d'exécution des projets;
2. chercher à s'assurer que les agences de soutien externe donnent leur appui aux programmes d'éducation publique et à la création de capacités, mettent en oeuvre des mécanismes de prise de décisions transparents et responsables au sein de leurs institutions, et encouragent une participation publique à tous les niveaux de la conception, de la mise en oeuvre et de la gestion des projets;
3. développer des programmes, tant nationaux qu'internationaux, mettant en avant les priorités nationales et internationales valables pour le secteur de l'eau et de l'assainissement de l'environnement, et développer des programmes d'action coordonnée visant à

- défendre ce secteur à tous les niveaux - politique, public, technique et financier;
4. intensifier la collaboration régionale, en particulier entre pays connaissant des problèmes similaires comme le partage de ressources en eau communes, ou étant dans une situation comparable comme celle des petits états insulaires;
 5. élaborer, aux niveaux national et international, des programmes concertés venant appuyer le développement de ressources en eau et de l'assainissement de l'environnement durable dans les petits états insulaires.

2. EAU, SANTE ET ENVIRONNEMENT -
pour une intégration de la politique de l'eau

Comme énoncé dans l'Action 21, la planification et la mise en oeuvre de programmes d'eau potable et d'assainissement devraient être conduites dans le cadre du développement pluridisciplinaire des ressources en eau, en abordant le problème du développement et du contrôle des ressources en eau à la manière d'un écosystème, et en prenant également en compte la dimension santé.

En vertu de quoi, au niveau approprié, les gouvernements devraient:

1. entreprendre une évaluation des ressources en eau afin d'inventorier la situation actuelle et d'identifier les problèmes et contraintes relatifs à l'approvisionnement en eau et aux services d'assainissement de l'environnement;
2. mettre au point, examiner ou réviser, dans le cadre d'une stratégie nationale de développement durable en accord avec l'Action 21, les mesures de gestion relatives aux ressources en eau et à la protection de l'environnement, et notamment à l'eau potable et à l'assainissement de l'environnement, visant à:
 - (a) reconnaître que l'accès aux services d'assainissement de l'eau et de l'environnement en quantité suffisante est un droit humain fondamental;
 - (b) obliger à maintenir et protéger la quantité et la qualité des ressources en eau en prenant en considération les impératifs de quantité et de qualité de l'eau dans le fonctionnement des écosystèmes aquatiques;
 - (c) obliger à utiliser l'eau de manière rentable, en tenant compte de la réutilisation et du recyclage des effluents, et à se débarrasser des déchets afin de préserver l'environnement pour le bien-être des générations futures;
 - (d) établir un cadre d'attribution rationnelle des eaux aux différentes utilisations parallèles: eau potable, industrie, agriculture et centrales hydroélectriques;
 - (e) ramener la consommation nationale d'eau au niveau des ressources disponibles;
 - (f) élaborer des politiques de soutien et des instruments politiques pour encourager le meilleur emploi possible de l'eau et une gestion durable des ressources en eau douce;
 - (g) reconnaître les objectifs de santé liés à la planification de l'approvisionnement en eau et de l'assainissement.
3. élaborer, examiner ou réviser d'ici à 1997 et mettre en oeuvre des mesures relatives à l'eau potable et à l'assainissement de l'environnement, dans le cadre de la Stratégie Nationale de Développement Durable en accord avec l'Action 21 et en tenant compte des objectifs fixés par le Sommet mondial sur l'Enfance, en vue de rationaliser et

rentabiliser l'approvisionnement et l'usage de l'eau potable ainsi que l'assainissement de l'environnement; ces mesures devraient inclure:

- (a) des stratégies destinées à desservir les déshérités et les personnes non desservies;
 - (b) des stratégies d'investissement incluant des stratégies destinées à servir les plus pauvres en respectant les besoins spécifiques de ceux vivant en milieu rural et péri-urbain;
 - (c) une stratégie de planification basée sur la compréhension de la demande effective ainsi que l'intégration des plans et programmes d'approvisionnement et de traitement des eaux usées;
 - (d) une stratégie de planification pour une éducation plus efficace en matière d'hygiène;
 - (e) la définition de critères et de normes réalistes pour la qualité de l'eau potable, pour l'évacuation des effluents et les eaux recyclées;
 - (f) la protection et l'amélioration de la santé humaine en donnant priorité aux populations exposées aux risques les plus importants;
4. associer à la mise en oeuvre des stratégies toutes les parties intéressées telles qu'utilisateurs, organisations non gouvernementales, scientifiques, organisations féminines, chefs d'entreprises locaux, professionnels et associations professionnelles;
 5. créer, là où il n'existe pas encore, un système national de surveillance de l'eau potable et de l'assainissement de l'environnement afin de procéder au suivi des efforts réalisés dans le cadre de ce Programme d'Action ainsi qu'au suivi des autres objectifs majeurs, en faisant pleinement appel aux systèmes de surveillance et aux systèmes d'informations mis au point par les programmes de contrôle de l'approvisionnement en eau et de l'hygiène de l'OMS/UNICEF;
 6. instaurer une politique de fixation des prix visant à encourager l'utilisation rentable de l'eau selon les critères suivants:
 - (a) coût abordable à tous les niveaux, en tenant également compte de l'impact sur la santé;
 - (b) préservation des ressources par la gestion de la demande;
 - (c) application du principe: les pollueurs seront les payeurs;
 7. réduire la proportion d'eau mise dans le circuit de distribution et "perdue" puisque n'atteignant pas l'utilisateur final, et évaluer les aspects relatifs aux institutions, à la gestion, à l'organisation et à l'exploitation des agences et organismes actifs dans le secteur de l'eau, afin d'identifier les facteurs affectant les quantités d'eau dont l'utilisation ne peut actuellement être justifiée;
 8. encourager la conception et l'usage de technologies

permettant d'économiser et de réutiliser l'eau afin de pallier aux utilisations grandes consommatrices d'eau dans l'industrie, l'agriculture et les ménages;

9. préserver la qualité tant des eaux de surface que de la nappe phréatique, si possible par une approche des bassins hydriques consistant notamment:
 - (a) à maintenir une gestion efficace des bassins hydriques et à protéger l'eau et les zones de captage des eaux proches des sources d'approvisionnement en eau potable en recourant à des réglementations relatives à l'utilisation des ressources naturelles spécifiques et des moyens de protection visant à minimiser la pénétration de substances polluantes et les autres impacts de l'industrie, de l'agriculture et des ménages;
 - (b) à réduire au minimum la pénétration d'engrais dans la nappe phréatique et les autres domaines aquatiques par une utilisation de la terre conforme à des pratiques agricoles acceptables;
 - (c) à utiliser les pesticides non seulement de façon judicieuse mais dans le respect des dispositions prévues par la législation; continuer à chercher les pesticides les moins nocifs et éliminer celles se révélant néfastes pour les eaux de surface et la nappe phréatique; promouvoir et appliquer des technologies agricoles durables;
 - (d) à mettre en place des installations de traitement des eaux usées ou le recyclage des eaux au sein d'un système environnemental salubre, et à accompagner leur planification d'études d'impact environnemental;
10. encourager le développement et l'utilisation adéquats de sources d'eau non conventionnelles comme la réutilisation d'effluents dans des conditions de sécurité, la collecte des eaux de pluie, le dessalement de l'eau de mer et des eaux saumâtres, ainsi que la préservation des sources traditionnelles;
11. renforcer les relevés et les analyses des données relatives à la santé pour mieux faire passer au premier plan et mieux cibler les problèmes de l'eau et de l'assainissement;
12. promouvoir l'adoption, là où elles n'existent pas encore, de normes ou de directives de qualité de l'eau potable judicieuses et spécifiques à chaque pays, en tenant compte des directives relatives à l'eau potable édictées par l'OMS.

Aux niveaux régional et international:

1. améliorer la coopération de la gestion des bassins fluviaux, le développement des ressources en eaux transfrontalières et le contrôle de la pollution;
2. encourager les transferts de technologie, en particulier sur une base régionale, dans l'optique des stratégies de minimisation des pertes, et des technologies au service de

l'économie et de la réutilisation de l'eau;

3. trouver un accord sur le choix d'indicateurs de l'état des ressources en eau en fonction de son emploi et de son utilisation.

3. L'EAU ET LES INSTITUTIONS - organisation de la prestation de services

Comme énoncé dans l'Action 21, il est fondamental de constituer des capacités si l'on veut équiper toutes les parties impliquées, créer des organismes compétents, fournir des effectifs suffisants en personnel qualifié et permettre aux collectivités de devenir des partenaires à part entière dans le développement sectoriel.

En vertu de quoi, au niveau approprié, les gouvernements devraient:

1. modifier l'importance du rôle des gouvernements qui, de celui de fournisseurs directs d'eau et de services d'assainissement de l'environnement, deviendraient créateurs de possibilités et arbitres entre les autres parties impliquées:
 - (a) en prenant la responsabilité de se charger du contrôle, des systèmes d'information nationaux et de la préparation des travaux d'évaluation des moyens nationaux en eau potable et en élaborant des politiques et guides sectoriels;
 - (b) en renforçant le rôle du gouvernement dans la constitution des cadres légaux, et en tant qu'arbitre, en s'assurant que les lois et règlements relatifs à l'eau sont effectivement appliqués;
 - (c) en prenant la responsabilité du contrôle des activités de tous les prestataires de services et autres parties impliquées;
 - (d) en considérant les possibilités de participation du secteur privé (en particulier en prenant partiellement à leur compte l'exploitation) dans l'approvisionnement en eau et l'assainissement moyennant que notamment la qualité, la rentabilité, la disponibilité à des prix raisonnables soient sauvegardés et que les intérêts sociaux soient reconnus grâce à une réglementation visant à protéger les utilisateurs;
2. créer des mécanismes de coordination au niveau approprié afin d'améliorer la collaboration intersectorielle, instaurer une politique uniforme, améliorer la planification et stimuler le partage des informations sectorielles intéressantes;
3. accroître les investissements au profit de programmes de création de capacités, y compris l'appui institutionnel et le développement des ressources humaines, en accordant une attention particulière au genre, appelés à jouer à tous les niveaux un rôle indispensable au niveau de la création des capacités d'organisation et de gestion;
4. identifier, soutenir et fournir les motivations nécessaires aux institutions afin que celles-ci aient davantage le souci des gens: propriété, prise de décisions et responsabilité de mise en oeuvre devraient être amenées au niveau approprié le plus près possible de l'utilisateur;

5. créer des services d'approvisionnement en eau et d'assainissement de l'environnement, capables de fonctionner de façon autonome - particulièrement au niveau de la gestion financière et de la gestion générale ainsi que de la recherche - garantissant la durabilité et l'efficacité des services et permettant de parvenir progressivement au recouvrement des frais;
6. améliorer les résultats globaux et financiers des services de sorte qu'ils soient plus responsables et plus transparents aux yeux des administrés auxquels il convient de garantir l'accès du public aux informations et aux données concernant la qualité et à des procédures de recours quant aux décisions prises par les services;
7. susciter ou développer la motivation afin de s'assurer le personnel compétent et nécessaire à la planification, à la direction et à l'exploitation de systèmes d'approvisionnement en eau et d'assainissement de l'environnement, et chargé de:
 - (a) améliorer l'éducation et la formation professionnelle et technique;
 - (b) élaborer des plans de carrière et fixer des indices salariaux suffisamment motivants pour retenir le personnel technique et professionnel;
 - (c) assurer la publication des documents techniques nécessaires pour appuyer l'expertise professionnelle, la gestion optimale des services de distribution et la participation efficace d'organisations non gouvernementales;
 - (d) sur la base d'une étude de genre, accroître le rôle des femmes dans la planification, la gestion et le fonctionnement, augmenter l'implication active des femmes dans les prises de décisions sur les choix en matière d'eau et d'assainissement de l'environnement aux niveaux micro et macro;
8. encourager la création d'associations professionnelles pluridisciplinaires en tant qu'instruments majeurs dans la constitution de réseaux, en particulier dans le but de prendre part à la formulation des normes nationales, d'organiser la diffusion du savoir-faire à l'échelon national, et d'adhérer aux associations professionnelles internationales pour profiter de leur soutien;
9. stimuler d'ici à 1998 la mise au point de différents indicateurs-clés, autres que la couverture, tels ceux ayant trait à la santé, l'impact sur l'environnement et le comportement des utilisateurs;
10. créer ou renforcer les centres de ressources nationales et des organes d'information nationaux pour la collecte et la diffusion d'informations, la recherche appliquée et l'aide technique à des fins de contrôle;
11. soutenir les institutions sanitaires appropriées qui, en collaborant avec les autorités compétentes en matière d'eau et d'assainissement de l'environnement, mettent en oeuvre

une éducation sur l'hygiène et s'impliquent dans la participation communautaire;

Aux niveaux régional et international:

1. favoriser l'échange d'informations et l'établissement de contacts entre les professionnels du secteur, les associations professionnelles et les organisations non gouvernementales, en recourant notamment au système du jumelage;
2. encourager une collaboration efficace avec les pays limitrophes pour la gestion des ressources en eau transfrontalières;
3. encourager, au niveau régional, l'échange d'expérience sur la réforme des corps institutionnels;
4. renforcer la coopération régionale, l'amélioration des capacités des organisations non gouvernementales et leur intéressement aux problèmes de l'eau potable et de l'assainissement de l'environnement afin d'améliorer la planification, la gestion et la mise en oeuvre des programmes.

4. L'EAU ET LA MOBILISATION DES RESSOURCES FINANCIERES - constitution d'avoirs pour l'avenir

Comme énoncé dans l'Action 21 et pour permettre aux services d'approvisionnement en eau et d'assainissement de l'environnement de fonctionner sur des bases économiquement saines, il est capital de rechercher l'utilisation la plus rentable et la plus concrète des fonds disponibles, en particulier au regard de la croissance de la demande mondiale en eau potable et en assainissement de l'environnement et la tendance à la baisse des fonds externes disponibles pour le secteur.

En vertu de quoi, au niveau approprié, les gouvernements devraient:

1. assurer une gestion financière équitable et efficace des systèmes d'approvisionnement en eau et d'assainissement de l'environnement:
 - (a) en déléguant progressivement la prise de décisions et la gestion au niveau compétent le plus bas, et en garantissant un personnel qualifié en quantité suffisante;
 - (b) en organisant le plus tôt possible un système de redevances façon telle (en effectuant des péréquations) ou en fixant les prix à un niveau tel que les organismes d'approvisionnement en eau et d'assainissement de l'environnement puissent fonctionner de façon financièrement autonome sans que cela ait une incidence néfaste sur l'approvisionnement fondamental de ceux se trouvant le plus dans le besoin;
 - (c) en permettant aux plus pauvres, à la lumière des effets auxquels ils sont potentiellement exposés, de bénéficier des changements ainsi induits;

2. mettre au point des directives détaillées pour les investissements dans le secteur de l'eau potable et de l'assainissement de l'environnement pour rationaliser la création et l'utilisation des ressources avec entre autres buts:
 - (a) l'approvisionnement continu en eau et l'assainissement de l'environnement pour l'usage domestique dans tous les secteurs de la société;
 - (b) la diminution maximale des subventions en prenant en compte les besoins spécifiques des plus démunis afin de leur garantir l'accès à une eau salubre;
 - (c) l'encouragement des investissements à bénéfices multiples qui, tout en permettant d'économiser de l'argent, améliorent la condition de l'utilisateur et protègent l'environnement;
 - (d) le ciblage des investissements prioritaires moyennant le recours à une technologie rentable, bon marché et judicieusement choisie;
 - (e) l'abandon progressif des technologies inadéquates;
 - (f) la réhabilitation et l'entretien des systèmes existants d'approvisionnement en eau et d'assainissement de l'environnement;

- (g) la priorité à des investissements plus nombreux et suffisants dans l'approvisionnement en eau et en assainissement de l'environnement, en particulier dans les zones urbaines et péri-urbaines, y compris les équipements, et à l'éducation en faveur d'une meilleure hygiène personnelle ou familiale et de la meilleure utilisation de l'approvisionnement en eau et de l'assainissement de l'environnement;
3. explorer et mettre au point des mécanismes de financement privés novateurs, y compris le financement privé et l'exploitation maximum de ressources locales;
 4. stimuler les approches intégrées, y compris les activités améliorant les revenus des populations pauvres rurales et semi-urbaines, en recourant à des mécanismes d'accès au crédit, de distribution des terres et de garantie de la propriété foncière et de la répartition des terres afin de réduire les besoins en subventions;
 5. encourager les systèmes de tarification des redevances dans différents cadres socio-économiques, en présence des différents types de demande de services et grâce aux différents mécanismes de collecte, dans le but d'introduire le recouvrement des coûts dans les programmes d'approvisionnement en eau et d'assainissement de l'environnement et, en particulier, en visant à ce que l'utilisateur supporte les coûts de d'assainissement de l'environnement (soit en incorporant ce paramètre dans les prix de l'eau potable, soit en envisageant un autre moyen);
 6. étudier et promouvoir l'utilisation et la réutilisation plus rentable de l'eau par des mesures d'incitation économique et en intégrant les coûts environnementaux aux tarifs de l'eau potable et de l'eau utilisée à d'autres fins;
 7. étudier les possibilités de réutilisation des eaux usées pour les utilisations agricoles ou en tant que ressource d'eau supplémentaire;
 8. accepter des variations temporaires du niveau des services offerts dans différentes régions afin de réaliser la plus grande couverture possible le plus tôt possible, puis améliorer ces niveaux jusqu'à un niveau uniforme pour autant que les ressources le permettent;
 9. insister sur l'importance des aspects concernant l'exploitation et la maintenance intégrés à la conception de projets;

Au niveau international, il est vivement recommandé que:

1. les agences de soutien externe, dont la Banque Mondiale et les banques régionales, donnent la priorité, le cas échéant, à des projets visant une plus grande couverture en approvisionnement en eau potable et assainissement de

l'environnement, et à des projets tendant à au moins maintenir la couverture actuelle en envisageant de faire appel à des technologies plus rentables et adéquates;

2. la conversion de dettes en investissements écologiques soit envisagée comme mécanisme d'obtention de fonds pour les secteurs;
3. le dialogue sur l'adoption de l'approche "20/20" telle qu'elle a initialement été proposée par le PNUE et l'UNICEF et selon laquelle 20% de l'Aide Officielle au Développement (AOD/ODA) et 20% des ressources budgétaires nationales sont dévolues au développement social ainsi qu'à l'eau potable et à l'assainissement, soit encouragé.

5. L'EAU ET LE MONDE -
encourager l'aide internationale

Afin de faciliter la mise en oeuvre d'activités nationales, il est vivement recommandé à la communauté internationale:

1. d'encourager la collaboration au niveau national comme instrument essentiel du succès de la préparation des stratégies sectorielles et des initiatives de mobilisation sociale;
2. d'accorder une attention particulière à l'assistance aux pays ayant mis au point des stratégies nationales pour l'approvisionnement en eau et l'assainissement de l'environnement, incluant les points de vue des parties impliquées et considérant dans leur globalité les structures socio-économiques et les écosystèmes;
3. de se concentrer sur les régions dans le besoin en reconnaissant qu'une attention particulière doit être accordée à l'Afrique;
4. de souligner le rôle et l'importance des organisations internationales et de la coopération bilatérale au niveau du soutien de programmes de création de capacités dans les pays en voie de développement et demander au Comité d'exécution du PNUE de se pencher sur l'eau et l'assainissement comme composante du Programme Capacité 21 du PNUE;
5. de demander à la Commission de Développement Durable des Nations Unies de réfléchir sur la façon dont les institutions existantes peuvent mettre à disposition des bureaux régionaux d'échange de données et d'informations, et sur les moyens de renforcer le rôle de la coopération au développement et des autres fonds d'aide pour l'eau potable et l'assainissement de l'environnement;
6. de renouveler les mécanismes de collaboration en vue de soutenir les initiatives de plus en plus nombreuses au niveau régional (pluri-étatique) telles SAARC, OUA, ASEAN ou ECLAC, et encourager la collaboration en vue de réaliser des objectifs;
7. d'encourager et de stimuler le rôle joué par les commissions régionales des Nations Unies et l'intérêt qu'elles montrent dans le domaine de l'eau et de l'assainissement de l'environnement, sans préjuger de l'aboutissement du processus de décentralisation en cours sous la responsabilité du Secrétaire Général;
8. d'encourager et de soutenir les actions nationales:
 - visant à induire des changements de comportement; et
 - relatives aux rôles joués par les collectivités, les gouvernements et les autres parties impliquées.

Il est par ailleurs recommandé:

9. que les conférences internationales futures, comme le Sommet Mondial pour le Développement Social, la Conférence sur la Population et le Développement, la Conférence des Femmes du Quart Monde, HABITAT II et d'autres, traitent de sujets touchant au développement et à la gestion des ressources en eau et, en particulier celles liées à l'approvisionnement en eau, à l'assainissement de l'environnement, à la dimension santé des ressources en eau de qualité;
10. que la Commission de Développement Durable des Nations Unies, lorsqu'elle fera son bilan en 1997, évalue les progrès au niveau de la mise en oeuvre par les gouvernements des recommandations de l'Action 21 relatives à l'eau potable et l'assainissement de l'environnement;
11. que les Nations Unies continuent à procéder à l'évaluation scientifique des ressources mondiales en eau ainsi qu'à des projections quant aux besoins en eau et à sa disponibilité;
12. que, reconnaissant la contribution positive du Conseil de Collaboration sur l'Approvisionnement en Eau et l'Assainissement en tant que forum mondial et partenariat entre professionnels des différents pays et des agences de soutien externe, des organisations non gouvernementales, associations professionnelles et organes d'informations, instituts de recherche et universitaires, le Conseil jouisse de tout l'appui nécessaire à son renforcement et à celui de son rôle de défenseur;
13. que soit mobilisés de toute urgence, en vue de prévenir la crise de l'eau, au sein du cadre institué par le Chapitre 33 de l'Action 21, des fonds supplémentaires suffisants en faisant appel à toutes les sources et à tous les mécanismes disponibles, et d'optimiser la disponibilité et le flux des ressources supplémentaires afin de mener à terme le présent Programme d'Action;
14. que la Commission de Développement Durable des Nations Unies, lors de sa seconde réunion, se penche sur la nécessité de renforcer les mécanismes existants pour la coordination des activités des Nations Unies dans le domaine des ressources en eau en vue d'aider la mise en oeuvre du Programme d'Action adopté par la présente Conférence, tout en tenant compte de la responsabilité initiale du Secrétaire Général pour la coordination inter-agences, et que la Commission de Développement Durable avise l'ECOSOC de se pencher sur ce sujet dans son segment de coordination en 1995;
15. que des associations internationales telles que l'AIDE et l'AIQE stimulent la création et le développement d'associations professionnelles nationales.

Les agences de soutien international sont invitées à:

16. évaluer dans quelle mesure leur programmes facilitent effectivement:

- (a) la gestion intégrée des ressources en eau;
 - (b) le renforcement à long terme des institutions nationales;
17. élaborer un programme et des mécanismes de prêt prenant nécessairement en compte la crise de l'approvisionnement en eau et de l'assainissement de l'environnement;
18. encourager le Conseil de Collaboration sur l'Approvisionnement en Eau et l'Assainissement, en association avec les organismes publics intéressés et les organisations non gouvernementales concernées, à entreprendre les recherches visant à renforcer ses activités et, le cas échéant, à entreprendre les démarches nécessaires pour étendre ses activités ou se constituer en un forum ou en un Conseil mondial de l'Eau plus vaste incluant les différents aspects du secteur de l'eau, et encourager le Conseil à soumettre à ses membres en avril 1995 le rapport des progrès réalisés à ce sujet.

EJECUCION DEL PROGRAMA 21 DE LA CNUMAD

CONFERENCIA DE MINISTROS

SOBRE AGUA POTABLE Y SANEAMIENTO AMBIENTAL

22 Y 23 de marzo de 1994, Noordwijk, Países Bajos

DECLARACION POLITICA

PROGRAMA DE ACCION

EJECUCION DEL PROGRAMA 21 DE LA CNUMAD

Conferencia de Ministros sobre el Agua Potable y el Saneamiento Ambiental

22 y 23 de marzo de 1994, Noordwijk, Países Bajos

Nosotros, los ministros ¹, reunidos en Noordwijk, Países Bajos, en los días 22 y 23 de marzo de 1994, en ocasión de la Conferencia de Ministros sobre Agua Potable y Saneamiento Ambiental, habiendo examinado y discutido el tema en cuestión, sobre la base de la documentación preparada para la Conferencia y enumerada en el Apéndice II,

1. REAFIRMAMOS QUE:

Nuestra tarea es buscar maneras de apoyar a nuestros gobiernos en la ejecución del Capítulo 18 del Programa 21.

1.1 En ese contexto, hacemos hincapié en la necesidad de una gestión integrada de los recursos hídricos. El capítulo 18 subraya la necesidad de:

- . una gestión holística del agua dulce como un recurso limitado y vulnerable, y la integración de planes y programas sectoriales relacionados con el agua, dentro del contexto de la política económica y social nacional, y
- . la consideración del agua como una parte integral del ecosistema, un recurso natural y un bien social y económico, cuya cantidad y calidad determinan la naturaleza de su utilización.

1.2 En el contexto particular del sector del agua potable y el saneamiento ambiental, subrayamos la confirmación en el Capítulo 18 de lo expresado en la Conferencia sobre el Agua Segura y el Saneamiento para los Años 90 celebrada en Nueva Delhi en 1990, en cuanto a la necesidad de brindar, sobre una base sostenible, el acceso al agua potable en cantidades suficientes y al saneamiento adecuado, poniendo el énfasis en aquello de: 'mejor un poco para todos que mucho para algunos'. El Capítulo 18 compromete a los gobiernos a seguir los cuatro Principios Rectores de Nueva Delhi:

- . protección del medio ambiente y preservación de la salud mediante la gestión integrada de los recursos hídricos y de los desechos líquidos y sólidos;
- . reformas institucionales que promuevan un enfoque integrado, incluidos cambios en los procedimientos, las actitudes y el comportamiento, así como la plena participación de la mujer en todos los niveles de las instituciones del sector;
- . administración comunitaria de los servicios, respaldada por medidas para fortalecer las instituciones locales en su tarea de ejecutar y sostener los programas de abastecimiento de agua y saneamiento; y

¹ Para la lista de países y organizaciones representados en la Conferencia, consulte el Apéndice I.

- . prácticas financieras racionales, logradas mediante una mejor administración de los activos existentes, y utilización amplia de tecnologías adecuadas.

1.3 Como mecanismos para implementar programas basados en estos principios, el Capítulo 18 hace hincapié en la necesidad de:

- . crear capacidades en todos los niveles administrativos, incluyendo desarrollo institucional, coordinación, recursos humanos, participación comunitaria, educación sobre la salud y la higiene, y alfabetización, lo cual constituye una de las claves fundamentales en la ejecución de las estrategias;
- . determinar los medios para financiar los sustanciales costos involucrados;
- . adoptar tecnologías que respondan a las necesidades y a las limitaciones impuestas por las condiciones de la comunidad de que se trate.

2. RECONOCEMOS QUE:

Muchos países se enfrentan a una crisis de agua

2.1 El explosivo crecimiento de los centros urbanos, la explotación insostenible de recursos naturales, la industrialización descontrolada, la creciente demanda de agua para la producción alimentaria y la expansión demográfica en condiciones insuficientes de saneamiento ambiental han conducido al gradual agotamiento y degradación de los recursos de agua dulce. En muchos casos, la evolución actual en el empleo del agua no es sostenible. Los crecientes costos de la explotación de recursos de agua dulce cada vez más distantes amenazan el desarrollo económico. A su vez, los efectos visibles y los menos visibles de una irresponsable eliminación de desechos y un insuficiente saneamiento ambiental causan la propagación de la miseria, la enfermedad y la muerte. La escasez de agua, y las tensiones que ello engendra, especialmente en los casos de reclamos sobre recursos transfronterizos, constituyen una amenaza potencial para la paz.

2.2 El acelerado deterioro de la calidad del agua y las reducidas existencias de agua dulce son afectados directamente por los procesos naturales y las actividades humanas. Para salvaguardar el suministro sostenible de agua segura y cuencas de agua, se precisa una acción concertada en todos los frentes, incluyendo la agricultura, el transporte, la industria, la planificación urbana y espacial, la planificación demográfica y la generación de energía eléctrica. Si bien se reconoce progresivamente a las ciudades como centros de progreso social y crecimiento económico, millones de residentes urbanos carecen de acceso a agua segura y servicios sanitarios suficientes. Existe una urgente necesidad de extender los suministros sostenibles de agua y saneamiento a la población urbana más necesitada. En muchos países existe también una extensa población rural, y se deberían continuar los esfuerzos para extender los servicios a los habitantes rurales de menores recursos.

Para satisfacer como mínimo las necesidades básicas de agua y saneamiento, la

crisis puede y debe ser solucionada.

- 2.3 Los compromisos contraídos por los gobiernos en el Capítulo 18 del Programa 21 ofrecen nuevas esperanzas para los varios millones de ciudadanos que soportan niveles intolerables de enfermedad, miseria y una vida indigna, por falta de abastecimiento de agua segura y medios convenientes de saneamiento. La tasa media de mortalidad infantil en el mundo, de seis mil niños al día, por falta de agua segura y saneamiento, es una trágica advertencia sobre la urgente necesidad de convertir los compromisos de los jefes de estado en Río y la Cumbre Mundial en favor de la Infancia, en acción positiva y concertada.
- 2.4 El objetivo de largo plazo sigue siendo 'agua segura y saneamiento para todos'. La disponibilidad de agua y saneamiento adecuados es una necesidad básica que debe ser satisfecha y debe ir acompañada por la obligación de un uso eficiente del agua, y una eliminación de desechos que permita la conservación del medio ambiente para beneficio de las futuras generaciones. Esta es una condición previa para un progreso sustancial hacia las metas comunes de salud para todos, mitigación de la pobreza, conservación del medio ambiente y desarrollo económico y humano. Para lograr estos objetivos, se deben ajustar los programas del agua y saneamiento ambiental a la capacidad del entorno local para sostenerlos, a las condiciones y necesidades socioeconómicas y culturales locales, y a la disponibilidad de recursos. Se deben tener en cuenta las diferencias en cuanto a las necesidades, el trabajo y la influencia de hombres y mujeres así como los beneficios que ellos recibirían.

Un cambio es necesario: seguir trabajando como hasta ahora no es suficiente.

- 2.5 El Decenio Internacional de Abastecimiento de Agua Potable y Saneamiento (1981-1990) se tradujo en un aumento proporcional de la extensión de los servicios, pero sólo tuvo una repercusión marginal en la reducción del número de personas no beneficiadas. Como razones principales se han señalado: el crecimiento demográfico, la falta de apoyo político, la insuficiente participación de la comunidad, una limitada movilización de recursos para proyectos de infraestructura, en particular en áreas urbanas, deficiente funcionamiento y mantenimiento de los sistemas instalados y, en ciertos casos, insuficiente atención hacia proyectos de pequeña escala y bajo costo que hubieran sido más apropiados que grandes proyectos de infraestructura. En muchos países, el saneamiento, la comunicación y la educación sanitaria, necesarios para lograr los cambios de comportamiento requeridos para aprovechar al máximo los mejoramientos en el suministro del agua, han seguido en un bajo nivel en la escala de prioridades.

El Decenio ha demostrado a todos los involucrados que los programas realizados en el sector del agua y saneamiento ambiental deben estar basados en la cooperación de todos los interesados (usuarios, - las mujeres en especial - asociaciones comunitarias, gobierno local, regional y central, agencias del sector público y privado, organizaciones no gubernamentales). El papel del gobierno es establecer el marco normativo y de apoyo. Esto debe abarcar la determinación y la aplicación de normas para el agua potable y aguas residuales y el apoyo necesario en los niveles pertinentes a fin de que los colaboradores locales puedan suministrar servicios locales conforme a las necesidades explícitas y la predisposición a pagar de todos los usuarios, facilitando una distribución equilibrada de contribuciones, influencia

y beneficios. Un papel clave de las instituciones financieras nacionales y las organizaciones internacionales de ayuda consiste en apoyar estrategias de asistencia para los menos privilegiados. Estas estrategias deberían ser rentables, estar basadas en las necesidades reales de las comunidades, y designadas para proteger los ecosistemas acuáticos amenazados y áreas de fuentes de captación.

Debemos usar nuestros recursos - humanos, hídricos y financieros - con mayor eficacia.

2.6 Las lecciones aprendidas en el Decenio Internacional de Abastecimiento de Agua Potable y Saneamiento (1981-1990) dan motivos para confiar en que, partiendo de los compromisos de Río, se pueden concretar los cambios apropiados, movilizar los recursos suficientes y se pueden iniciar programas de acción, con el fin de lograr un progreso más efectivo, viable y sostenible hacia los objetivos nacionales de agua y saneamiento para todos. Cubrir la brecha entre las necesidades y los fondos disponibles implica cambio. Seis cambios representan un valioso aporte para alcanzar estos objetivos, a saber:

- . orientación de las inversiones hacia proyectos asequibles y diseñados desde una perspectiva ecológica, para atender a los más necesitados;
- . una mayor eficacia en el uso de los fondos disponibles y movilización de fondos adicionales de las fuentes existentes y de otras nuevas, incluyendo agencias gubernamentales, el sector privado y los consumidores;
- . movilización de las comunidades locales en programas de auto-ayuda;
- . fijación de precios realistas para los servicios de agua y saneamiento para todos los usuarios, tomando en consideración el poder adquisitivo;
- . reducción de los altos niveles de derroche de agua en muchas ciudades y en la actividad agrícola e industrial; y
- . promover la conservación del agua mediante métodos de reciclaje y re-utilización del agua, reconociendo que las aguas residuales tratadas tienen un valor potencial como recurso hídrico, y combatiendo la contaminación industrial.

Otro aspecto esencial consiste en que los organismos y gobiernos internacionales otorguen mayores prioridades a las actividades de investigación y desarrollo orientadas a lograr mayores avances en la búsqueda de tecnologías más apropiadas para el sector del agua y saneamiento ambiental.

2.7 El suministro ineficaz de agua y servicios sanitarios a los hogares, y los graves problemas de escasez de agua y contaminación en todo el mundo exigen una respuesta inmediata. Si bien los problemas de suministro de agua y servicios sanitarios varían en su naturaleza de un lugar a otro, y se manifiestan primariamente a nivel local y regional, los mismos constituyen temas de preocupación mundial. Por lo tanto, es preciso encontrar una respuesta internacional concertada y coordinada para una máxima eficacia en el empleo de los recursos de agua y

financieros.

3. EN CONSECUENCIA, Y LLEVANDO ESTAS CONSIDERACIONES A LA ACCION EN NUESTROS RESPECTIVOS PAISES, O A TRAVES DE LA COLABORACION INTERNACIONAL:
 - 3.1 subrayamos nuevamente el compromiso de implementar el Capítulo 18 del Programa 21, y el papel crucial que el mejoramiento de los programas de suministro del agua y de saneamiento desempeña en el incremento de la salud, la protección de los recursos de agua dulce y el logro de un desarrollo sostenible; urgimos a que se conceda el necesario apoyo financiero a la gestión de los recursos hídricos en general, y al sector del agua potable y saneamiento ambiental y educación para un cambio de comportamiento, en particular, como elementos vitales para lograr los mutuos y múltiples beneficios derivados de la disminución de las enfermedades, preservación del medio ambiente, y estímulo del desarrollo económico y humano; señalamos el hecho de que, si bien se han incrementado los fondos internacionales de apoyo a proyectos de suministro de agua y saneamiento ambiental, todavía existen factores que impiden el flujo de recursos a los países en desarrollo y estos temas deben ser planteados, además de otras cuestiones, en el marco de las discusiones generales sobre cooperación internacional.
 - 3.2 fomentamos el desarrollo y la ejecución de estrategias para el sector del agua potable y saneamiento ambiental, en todos los niveles pertinentes inclusive el internacional; elaboramos estas estrategias sectoriales dentro del contexto más amplio de estrategias para la gestión sostenible de recursos hídricos y protección ambiental, asegurando que sean coordinadas al nivel nacional y local con actividades en el área de salud, educación, agricultura, silvicultura, industria, energía, desarrollo urbano y rural, y otros sectores relevantes, a fin de salvaguardar la calidad y la cantidad de recursos de agua en todo el mundo;
 - 3.3 subrayamos que los cambios de comportamiento, el desarrollo de la base de conocimientos, la formación de especialistas, la cooperación entre los interesados, el pleno compromiso de todos los participantes, junto con un incremento de las capacidades, son elementos fundamentales para el éxito; buscamos acelerar las gestiones para crear marcos generadores de posibilidades, de apoyo y regulación, que faciliten la máxima participación de agencias locales y de entidades individuales en programas destinados a mejorar el entorno de vida; realzamos la prioridad de los programas orientados al refuerzo de las instituciones y el desarrollo de recursos humanos, que generen capacidades organizativas y administrativas para el suministro y mantenimiento de servicios locales de agua y saneamiento ambiental.
 - 3.4 recomendamos la aplicación de principios económicos sólidos en la distribución y fijación de precios de los recursos hídricos, basándose en el principio de que el agua es un bien económico y social y una necesidad humana básica; procuramos una utilización más eficaz de los recursos hídricos y financieros disponibles, dirigiendo estos recursos hacia proyectos que satisfacen de la mejor manera los objetivos de desarrollo sostenible, o sea, proyectos con tecnología apropiada, viabilidad económica, seguridad para el medio ambiente y aceptables desde el punto de vista social; creamos condiciones que permitan a los suministradores de agua fijar tarifas equitativas para el agua de uso

agrícola, industrial y doméstico, promoviendo así la conservación y el uso eficiente; estudiamos maneras de mejorar el acceso de las comunidades locales a los recursos financieros, y estimularlas a emprender la gestión comunitaria de los servicios de suministro de agua y saneamiento ambiental; fomentamos la participación potencial del sector privado en el financiamiento, construcción, funcionamiento y mantenimiento de los servicios de agua y saneamiento; estimulamos a los organismos externos de apoyo, incluyendo a los bancos multilaterales y regionales de desarrollo, a adoptar lineamientos para inversiones en el sector del agua y saneamiento ambiental, coherentes con los lineamientos rectores del Capítulo 18 del Programa 21;

- 3.5 para evitar costosas medidas de rectificación en el futuro, adoptamos programas de reducción de desechos y prevención de la contaminación en su origen y de protección de áreas de captación, para salvaguardar las fuentes de suministro de agua, la calidad del agua, los ecosistemas acuáticos y las pesquerías, y para reducir el derroche del agua con el objeto de asegurar la conservación de los recursos futuros; establecemos estructuras de tarifas que permitan reducir el derroche, incrementar la recuperación de las inversiones y prevenir la contaminación, tales como aumento proporcional de las tarifas a mayor consumo, tarifas para aguas cloacales y el tratamiento de aguas residuales, y aplicación de multas al incumplimiento; satisfacemos las nuevas demandas de agua con métodos que no atenten contra el medio ambiente, incluyendo la conservación y re-utilización del agua, y el control de la demanda, en particular en el sector del riego;

4. EN CONSECUENCIA, NOSOTROS, LOS MINISTROS:

- 4.1 RESPALDAMOS EL PROGRAMA DE ACCION ADJUNTO PARA SU PRONTA EJECUCION como un nuevo paso hacia el desarrollo sostenible de los servicios de agua potable y saneamiento ambiental.

Este programa se basa en la experiencia adquirida durante el Decenio Internacional de Abastecimiento de Agua Potable y Saneamiento, y lleva a la práctica las determinaciones del capítulo 18 del Programa 21. Las principales lecciones de esta experiencia demuestran que el aumento de la capacidad es la clave, y que debemos

- a. generar conciencia pública y política sobre la importancia de la inminente crisis del agua;
- b. fijar metas realistas en la marcha hacia el objetivo general de agua segura y saneamiento para todos; urgir a los gobiernos a fijar un calendario relevante para la ejecución del Programa de Acción;
- c. establecer sistemas más eficaces y más eficientes de agua potable y saneamiento ambiental en todos los países;
- d. movilizar los recursos disponibles en cada país, de usuarios y los sectores privado y público, desde la perspectiva de "quien contamina paga", dentro de sistemas autónomos de financiación para los servicios de suministro de agua y saneamiento;
- e. fomentar la movilización de recursos financieros internacionales y la transferencia de tecnología para complementar y apoyar los

recursos nacionales.

El programa incorpora asimismo los nuevos enfoques desarrollados por el Programa 21. Se debe conceder atención especial a los siguientes aspectos:

- a. la gestión integrada del agua, teniendo en cuenta todo lo que este elemento significa para el medio ambiente, para la política social y económica y para la planificación ambiental;
- b. la creación de lazos de colaboración entre todos los interesados, que reflejen las diferentes necesidades de hombres, mujeres y jóvenes, involucrando a todos los sectores de la sociedad en la solución de los problemas que les afectan;
- c. inducir cambios de comportamiento en lo que respecta al agua limpia y la higiene, y modificar el papel del gobierno, con el fin de aprovechar al máximo los recursos disponibles, hacer posible la gestión integrada del agua en el más bajo nivel pertinente, y orientarse hacia un sistema de gestión accionada por la demanda;
- d. poner en práctica la gestión de recursos del agua como un bien social y económico;
- e. la búsqueda de innovaciones, tecnológicas y de otra índole, para proteger nuestros recursos de agua, limitados y vulnerables, y zanjar la brecha entre los recursos físicos, humanos y financieros, y la creciente demanda de agua y necesidad de saneamiento, producida especialmente por la urbanización y la industrialización en los países en desarrollo.

ADEMÁS:

- 4.2 Advertimos que en la reunión de especialistas en el área del agua y la salud en zonas urbanas menos privilegiadas, realizada en Sophia-Antipolis, Francia, el 21 y 22 de febrero de 1994, se adoptaron recomendaciones que deberán ser remitidas a los participantes de la Comisión para el Desarrollo Sostenible, en su segunda sesión de Mayo, 1994.
- 4.3 Considerando los problemas especiales que afectan a los pequeños estados insulares, transmitimos esta Declaración y el Programa de Acción a la Conferencia de las Naciones Unidas sobre Desarrollo Sostenible de Pequeños Estados Insulares en Desarrollo, que se realizará en Barbados, del 24 de abril al 6 de mayo de 1994.
- 4.4 Recomendamos que, con el propósito de prevenir una crisis de agua, existe una necesidad urgente de movilizar, dentro del contexto establecido por el Capítulo 33 del Programa 21, recursos financieros apropiados, a través de todas las fuentes y mecanismos disponibles, acrescentando al máximo la disponibilidad y flujo libre de recursos adicionales para ejecutar este Programa de Acción.
- 4.5 Considerando la necesidad de coordinar, concentrar y consolidar las diversas actividades internacionales relevantes al sector del agua potable y saneamiento ambiental, dentro del contexto de una gestión integrada de los recursos hídricos, recomendamos:

- a. estudiar medidas que fomenten este proceso, particularmente por parte de la Comisión para el Desarrollo Sostenible;
- b. fortalecer las instituciones y las organizaciones existentes que prestan una contribución al logro de este objetivo, de conformidad con el Programa de Acción.

4.6 Recomendamos que la Comisión de Desarrollo Sostenible en su segunda sesión en mayo de 1994, considere la adopción de este Programa de Acción.

1. EL AGUA Y LAS PERSONAS -
para lograr la colaboración y un cambio de comportamiento

Tal como se declara en el Programa 21, para alcanzar el desarrollo sostenible es necesaria la colaboración entre todos los interesados. La colaboración debe partir de la comprensión de las necesidades reales del usuario. Una mejor colaboración contribuirá a mejorar los resultados, resolver conflictos y promover la integración.

A fin de posibilitar y respaldar este enfoque basado en la colaboración, las decisiones en el sector del agua potable y saneamiento ambiental deben estar basadas sobre un diálogo acerca de las actitudes y necesidades de la población en las comunidades rurales y urbanas, y de aquello que sean capaces de administrar, mantener y pagar. Se debe producir el cambio de actitud necesario a nivel político y gubernamental, así como en los sectores del agua potable y saneamiento ambiental, para posibilitar y apoyar este enfoque de colaboración.

En consecuencia, en los niveles pertinentes, los gobiernos deberían:

1. generar conciencia pública y movilización social hacia la cuestión del agua potable y el saneamiento ambiental:
 - (a) fomentando el entendimiento mutuo entre el gobierno, las autoridades locales, los gestores de los servicios públicos, los consumidores -las mujeres de manera especial-, jóvenes y otros interesados, sobre los problemas del agua, la vulnerabilidad de los recursos hídricos y el medio acuático;
 - (b) elevando el grado de conciencia entre los todos los interesados sobre la progresiva escasez de los recursos hídricos y sobre la necesidad de utilizarlos de manera económica y racional, así como de instalar o mejorar los sistemas de tratamiento de las aguas residuales para prevenir la contaminación de los recursos hídricos y adoptar los hábitos higiénicos adecuados que eviten la contaminación bacteriológica;
 - (c) garantizando conocimientos fundamentales sobre la conservación y el uso del agua, enfocando la prioridad sobre el tema de la salud;
 - (d) elevando el grado de conciencia sobre el hecho de que el agua es un bien social y económico, con un valor económico sobre el cual se debe aplicar una política adecuada de precios, incluyendo el empleo de instrumentos económicos;
 - (e) formulando y ejecutando programas de comunicación y participación dirigidos a introducir cambios de actitudes, planificación, diseño/construcción, funcionamiento y procedimientos de mantenimiento;
 - (f) facilitando programas de capacitación de acuerdo con lineamientos normativos para todas las categorías del personal responsable de la gestión de agua potable, saneamiento y tratamiento del agua, en todos los niveles relevantes de autoridad que reflejen nuevos enfoques y principios.

2. mejorar la colaboración y la participación; para ello, se debe dar prioridad a las siguientes acciones:
 - (a) estimular a los responsables de la gestión política, propietarios, contratistas y operadores de los sistemas de suministro de agua y saneamiento ambiental para que incluyan la participación de las comunidades locales, organizaciones de usuarios, mujeres y organizaciones no gubernamentales en la planificación y adopción de decisiones sobre esos sistemas, a fin de aprovechar los conocimientos, aptitudes especiales y las diversas opiniones de cada lugar;
 - (b) crear el marco legal e institucional necesario para dicha apoyar dicha participación y colaboración;
 - (c) desarrollar planes para incrementar la capacidad de todos los interesados, incluyendo la dotación de capacidades a las comunidades, en particular a las mujeres, mediante programas adecuados de educación y capacitación a nivel comunitario, representación de todos los usuarios en las Juntas de las Empresas de Servicios Públicos, la creación de consejos de consumidores y el desarrollo de mecanismos de consulta con los interesados;
 - (d) proporcionar acceso a la información sobre proyectos, programas y políticas, reconociendo los derechos y las responsabilidades de los ciudadanos y las comunidades, y proporcionando información confiable y transparente sobre los procesos de adopción de decisiones, y normas de calidad del agua, incluyendo la posibilidad de apelación y análisis independiente.

3. En el nivel regional e internacional:
 1. desarrollar programas de intercambio de información y experiencia, en especial en el campo de la capacitación, educación, investigación, tecnología y métodos de diseño y ejecución de proyectos;
 2. procurar garantizar que los organismos internacionales de cooperación apoyen los programas de educación pública y aumento de capacidad, crear mecanismos fiables y transparentes para la adopción de decisiones dentro de sus instituciones, y promover la participación pública en todos los niveles de diseño, ejecución y gestión de los proyectos;
 3. desarrollar programas, tanto a nivel nacional como internacional, ofreciendo prioridades para el sector del agua y el saneamiento ambiental, y crear programas de acción coordinada para promover el sector a todos los niveles - político, público, técnico y financiero;
 4. fortalecer la colaboración regional, particularmente entre países vecinos con problemas comparables, como en el caso de recursos hídricos transfronterizos, o de situaciones comparables, como la de pequeños estados insulares;

5. desarrollar programas concertados en los niveles nacional e internacional, en apoyo al desarrollo sostenible de recursos hídricos y saneamiento ambiental en pequeños estados insulares.

2. EL AGUA, LA SALUD Y EL MEDIO AMBIENTE - para una gestión integrada del agua

Tal como se declara en el Programa 21, la planificación y ejecución de los programas para el agua potable y saneamiento ambiental deberían realizarse en el contexto de un marco integral para el desarrollo de los recursos de agua, basado en un enfoque del desarrollo y la gestión de los recursos de agua que otorgue prioridad a los ecosistemas, y comprendiendo el factor salud.

En consecuencia, en el nivel apropiado, los gobiernos deberían:

1. realizar una evaluación de los recursos hídricos para obtener un inventario de la situación presente y detectar problemas y limitaciones en el suministro de agua y servicios de saneamiento ambiental.
2. crear, examinar o modificar - en el contexto de una estrategia nacional de desarrollo sostenible, coherente con el Programa 21 - medidas para la gestión de los recursos hídricos y la protección ambiental, que abarquen el agua potable y saneamiento del medio que apunten a:
 - (a) el reconocimiento de que el acceso a servicios apropiados de agua y saneamiento del medio es una necesidad humana;
 - (b) la necesidad de conservar y proteger tanto la calidad como la cantidad de los recursos hídricos, tomando en cuenta los requerimientos de cantidad y calidad del agua para el funcionamiento de los ecosistemas;
 - (c) la obligación de efectuar un uso eficaz del agua, considerando el reaprovechamiento y el reciclaje de desechos líquidos, y la eliminación de desechos con métodos que conserven el medio ambiente para beneficio de las futuras generaciones;
 - (d) un marco para la distribución racional del agua entre los diversos usos, incluyendo el agua potable, la industria, la agricultura y la energía hidroeléctrica;
 - (e) ajustar el nivel de consumo nacional de agua al nivel de los recursos disponibles;
 - (f) políticas de apoyo e instrumentos políticos para contribuir a la mejor utilización posible de los recursos hídricos y la gestión sostenible de recursos de agua dulce;
 - (g) reconocimiento de los objetivos relacionados con la salud, en la planificación del suministro de agua y saneamiento.
3. desarrollar, examinar o modificar, y ejecutar en el contexto de una estrategia nacional de desarrollo sostenible coherente con el Programa 21, estrategias para el agua potable y el saneamiento ambiental, teniendo en cuenta los objetivos establecidos por la Cumbre Mundial en favor de la Infancia, con vistas a una provisión y utilización racionales y eficaces del agua potable y saneamiento ambiental; estas medidas deberían incluir:

- (a) estrategias para extender el servicio a los sectores pobres y no alcanzados por los servicios;
 - (b) estrategias de inversión, incluyendo estrategias para extender los servicios a los grupos pobres, según las necesidades especiales de las áreas rurales y las periferias urbanas;
 - (c) una estrategia de planificación basada en el entendimiento de la demanda real y la integración de planes y programas concernientes al suministro de agua y a aguas cloacales;
 - (d) una estrategia de planificación dirigida a una educación higiénica más eficaz;
 - (e) establecer normas y criterios realistas de calidad para el agua potable, para aguas cloacales y aguas de reciclaje;
 - (f) la protección y fomento de la salud humana, dando prioridad a los grupos de población de mayor riesgo;
4. involucrar en la ejecución de estrategias a todos los interesados, como por ejemplo los consumidores, organizaciones no gubernamentales, científicos, organizaciones de mujeres, empresarios locales, profesionales y organizaciones de profesionales;
5. crear, donde aún no exista, un sistema de control a nivel nacional del agua potable y el saneamiento ambiental, a fin de vigilar los esfuerzos en este Programa de Acción, así como otros objetivos principales, aprovechando al máximo los sistemas disponibles de control abierto y sistemas de apoyo a la información que se crean en el marco de los Programas existentes de Control del Agua Potable y Saneamiento de la OMS/UNICEF;
6. establecer políticas de precios orientadas a la promoción de la utilización eficaz del agua, según los siguientes criterios:
- (a) asequibles en todos los niveles, considerando las repercusiones sobre la salud;
 - (b) conservación de recursos a través de la gestión de la demanda;
 - (c) aplicación del principio 'el que contamina paga';
7. reducir la proporción de agua que entra en el sistema de distribución y se pierde, sin servir para un uso final, e evaluar los aspectos institucionales, administrativos, organizativos y operacionales de las empresas de suministro de agua, para detectar los factores que afectan los niveles existentes de agua cuya utilización no consta en los registros.
8. promover el diseño y aplicación de tecnologías de utilización económica y reaprovechamiento del agua, a fin de disminuir el consumo de agua en industrias, agricultura y hogares;
9. preservar la calidad natural de las aguas superficiales y

subterráneas, si fuera viable desde la perspectiva de las cuencas hidrográficas, que incluya:

- (a) el mantenimiento de una gestión eficaz de las cuencas hidrográficas, estableciendo áreas de protección del agua y zonas sanitarias adyacentes a las fuentes de suministro de agua potable, con regulaciones que gobiernen la utilización especial de los recursos naturales y prácticas de conservación, para reducir al mínimo el vertido de sustancias contaminantes y otros derivados de la industria, agricultura y unidades domésticas;
 - (b) prevenir el vertido de nutrientes en las aguas subterráneas y otras masas de agua, mediante la explotación de la tierra con prácticas agrícolas sostenibles;
 - (c) el uso correcto de pesticidas, de acuerdo con las estipulaciones de la legislación; búsqueda constante de pesticidas menos perjudiciales y eliminación de los que se haya comprobado que son perjudiciales para las aguas superficiales y subterráneas; promoción y utilización de técnicas agrícolas sostenibles;
 - (d) la instalación de plantas de tratamiento de aguas residuales y el uso de agua reciclada dentro de un sistema que tenga en cuenta la protección del medio; su planificación deberá ir acompañada, donde corresponda, por una evaluación de la repercusión en el medio ambiente.
10. promover el desarrollo apropiado y la utilización de fuentes no convencionales de suministro de agua, tales como el reaprovechamiento seguro de aguas cloacales, recolección del agua de lluvia, desalación del agua de mar y aguas subterráneas salinas y conservación de las fuentes tradicionales;
 11. reforzar la recolección y análisis de datos relativos a la salud para contribuir a establecer prioridades y objetivos en el área del agua y el saneamiento;
 12. promover, donde aún no exista, la adopción de normas o directrices de calidad del agua potable apropiadas y específicas para cada país, siguiendo los lineamientos de calidad del agua potable establecidos por la OMS.

A nivel regional e internacional:

1. fomentar la cooperación en la gestión sobre las cuencas fluviales y la explotación de recursos hídricos transfronterizos, y el control de la contaminación;
2. promover la transferencia de tecnología, en particular a nivel regional, en el terreno de estrategias de reducción de pérdidas y ahorro del agua y reaprovechamiento del agua;
3. acordar indicadores del estado de los recursos hídricos, en relación con sus funciones y usos.

3. EL AGUA Y LAS INSTITUCIONES - organización del suministro de servicios

Tal como se declara en el Programa 21, la formación de capacidades es una actividad fundamental para crear instituciones competentes, para proporcionar una cantidad adecuada de personal calificado, para capacitar a todas las partes interesadas y para permitir que las comunidades se conviertan en colaboradores plenos del desarrollo del sector.

En consecuencia, en el nivel apropiado, los gobiernos deberían:

1. transformar el énfasis sobre el papel que desempeña el gobierno, según sea pertinente, en lo concerniente al sector de servicios de agua y saneamiento ambiental, convirtiéndolo en instrumento y regulador de las demás partes:
 - (a) asumiendo la responsabilidad de la organización de sistemas control, estableciendo sistemas de información de alcance nacional, preparando evaluaciones del agua potable del país y desarrollando políticas y lineamientos para el sector;
 - (b) reforzando el papel del gobierno en la creación de marcos legales y como regulador, asegurando una aplicación eficaz de las leyes y las normativas relacionadas con el agua;
 - (c) asumiendo la responsabilidad del control adecuado de los resultados de actividades de todos los proveedores de servicios y otros interesados, según convenga;
 - (d) considerando las posibilidades de participación del sector privado (particularmente en las partes operacionales) en el suministro de agua y saneamiento, a condición de que, entre otros factores, la calidad, la eficacia, la disponibilidad a precios justos y el reconocimiento de los intereses sociales, sean salvaguardados a través de regulaciones pertinentes para proteger a los usuarios;
2. establecer mecanismos de coordinación, al nivel pertinente, a fin de estimular la colaboración intersectorial, establecer una política uniforme, mejorar la planificación y fomentar el intercambio de información relevante para el sector;
3. aumentar las inversiones en programas de creación de capacidades, incluyendo el fortalecimiento de las instituciones y desarrollo de los recursos humanos, con atención especial al aspecto del género, necesarios para crear capacidad organizativa y de gestión en todos los niveles;
4. crear, apoyar y proporcionar los incentivos necesarios para que las instituciones estén más orientadas a la población: la propiedad, la adopción de decisiones y la responsabilidad en la ejecución deben llevarse hasta el nivel más bajo posible y el más cercano posible del usuario;
5. crear servicios públicos de abastecimiento de agua y saneamiento ambiental que puedan funcionar de forma autónoma, en particular con respecto a la gestión financiera global y la investigación, asegurando la sostenibilidad y eficacia de los servicios, para

una progresiva recuperación de los costes;

6. mejorar los resultados generales y económicos de los servicios públicos para que ejerzan una actividad de mayor transparencia y fiabilidad de cara al público, incluyendo en ello proporcionar el acceso a la información y los informes de calidad y permitir al público la posibilidad de apelar las decisiones relacionadas con sus decisiones;
7. a fin de garantizar la existencia del personal calificado necesario para la planificación, la gestión y la explotación de los sistemas de suministro de agua y saneamiento ambiental se deberán crear o fortalecer incentivos para:
 - (a) mejorar la educación y la capacitación técnica y profesional;
 - (b) establecer criterios de planificación de carrera y adecuados niveles salariales a fin de retener al personal técnico y profesional;
 - (c) garantizar la publicación del material técnico necesario como respaldo a la práctica profesional, a la gestión eficaz de los servicios públicos y a la participación efectiva de las organizaciones no gubernamentales;
 - (d) en base a un adecuado estudio de género, promover la actuación de la mujer en la planificación, la gestión y el funcionamiento; intensificar la participación activa de la mujer en la toma de decisiones en cuestiones concernientes al agua y los saneamientos ambientales a macronivel y micronivel;
8. estimular la creación de asociaciones profesionales interdisciplinarias como ayuda esencial para el intercambio de contactos, en especial para participar en la formulación de normas nacionales y organizar la difusión de conocimientos a nivel nacional, así como para unirse a las asociaciones profesionales internacionales y aprovechar las ventajas de su apoyo;
9. estimular para 1998 el desarrollo de indicadores clave de otros factores además de la cobertura, como ser indicadores relacionados con la salud, el impacto en el medio ambiente y las actitudes de los usuarios;
10. establecer o fortalecer centros nacionales de recursos, incluyendo instituciones nacionales para la recolección y difusión de información, la investigación aplicada y el respaldo técnico para el control;
11. reforzar las instituciones sanitarias apropiadas que llevan a la práctica la educación sobre la higiene y respaldan la participación comunitaria, en coordinación con las autoridades del agua y saneamiento;

En los niveles regional e internacional:

1. promover el intercambio de información y las redes de contacto entre los profesionales del sector, las asociaciones profesionales y las organizaciones no gubernamentales, incluyendo acuerdos bilaterales de cooperación mutua;
2. promover una colaboración eficaz con países vecinos en la gestión de los recursos de agua transfronterizos;
3. promover el intercambio regional de experiencia sobre reforma institucional;
4. fortalecer la cooperación regional que fomente la capacidad de las organizaciones no gubernamentales y su participación en el área del agua potable y saneamiento ambiental, para lograr un mejoramiento de la planificación, gestión y ejecución de programas.

4. EL AGUA Y LA MOVILIZACION DE LOS RECURSOS ECONOMICOS
aumento de activos para el futuro

Tal como se declara en el Programa 21, a fin de lograr que el suministro de agua potable y los servicios de saneamiento ambiental funcionen sobre una sólida base económica, es de crucial importancia apuntar al empleo más eficaz y eficiente de los fondos disponibles, tal como lo establece el Programa 21, en particular de cara a la creciente demanda de agua potable y de saneamiento ambiental y a la tendencia a una disminución de los fondos externos para el sector.

En consecuencia, en el nivel pertinente, los gobiernos deberían:

1. garantizar una gestión económica justa y eficaz de los sistemas de abastecimiento de agua y de saneamiento ambiental:
 - (a) trasladando progresivamente la toma de decisiones y la gestión al nivel más elemental adecuado, que disponga de personal suficientemente calificado;
 - (b) organizando lo más pronto posible un sistema de tarifas de tal manera (subvenciones cruzadas) o fijando los precios de tal forma que las organizaciones de suministro de agua y de saneamiento ambiental pueden funcionar con autonomía económica, sin que ello tenga repercusiones negativas sobre el suministro básico para los más necesitados;
 - (c) tomando en consideración las posibles implicaciones para la población de menores recursos, posibilitando que sean beneficiados por los cambios introducidos;
2. desarrollar directrices detalladas para las inversiones en el sector del agua potable y del saneamiento ambiental, a fin de racionalizar la generación y el uso de los recursos, apuntando, entre otros fines, a:
 - (a) la provisión continuada de agua y de saneamiento ambiental para usos domésticos en todos los sectores de la sociedad;
 - (b) reducción de subsidios al mínimo, considerando sin embargo las necesidades especiales de los más necesitados;
 - (c) fomentando inversiones de beneficio mutuo, que permitan ahorrar dinero, mejorar la situación de los usuarios y proteger el medio ambiente;
 - (d) orientar las prioridades de inversión hacia una tecnología rentable, asequible y apropiada;
 - (e) eliminar paulatinamente las tecnologías inadecuadas;
 - (f) la rehabilitación y el mantenimiento de los sistemas existentes de suministro de agua y saneamiento ambiental;
 - (g) dar prioridad a mayores y suficientes inversiones en el suministro de agua y saneamiento ambiental, particularmente en zonas urbanas y periféricas, incluyendo tanto los servicios físicos como la educación para lograr una mejor

higiene personal y familiar y la mejor utilización del suministro de agua y del saneamiento ambiental;

3. explorar y desarrollar nuevos mecanismos de financiación, incluyendo fondos del sector privado, y fomentando en la medida de lo posible los recursos locales;
4. estimular los enfoques integrados, incluyendo las actividades de mejora de los ingresos entre la población pobre semi-urbana y rural, mediante mecanismos que posibiliten el acceso a los créditos, distribución de la tierra y garantías a la tenencia de la tierra, de modo de reducir la necesidad de subvenciones;
5. fomentar el desarrollo de sistemas de tarifas, en diversas situaciones socio-económicas, en distintas situaciones de demanda de servicios y mediante distintos mecanismos de cobro, con vistas a la introducción de la recuperación de los costes en los programas de abastecimiento de agua y saneamiento ambiental, y en especial con vistas a cobrar al usuario los costes del saneamiento ambiental (ya sea incorporando este factor en el precio del agua o por algún otro medio);
6. estudiar y promover la utilización y reutilización más eficaces del agua mediante incentivos económicos, e incorporar los costes ambientales en las tarifas de agua potable y de agua destinada a otros fines;
7. estudiar las posibilidades de reaprovechamiento de aguas residuales tratadas, para fines agrícolas o como recurso hídrico suplementario;
8. aceptar variaciones temporarias en el nivel del servicio provisto en diferentes áreas, de modo de lograr el mayor alcance de forma más inmediata, y mejorar luego esos niveles a un nivel uniforme, según los recursos disponibles lo permitan;
9. subrayar la importancia de que se incorporen en el diseño de proyecto consideraciones sobre la operación y el mantenimiento.

En el nivel internacional, se insta a que:

1. que las agencias internacionales de ayuda, incluyendo el Banco Mundial y bancos regionales, otorguen prioridad, donde proceda, a proyectos orientados a extender el alcance del suministro de agua potable y saneamiento ambiental, y a proyectos que intenten mantener al menos el alcance existente, tengan en cuenta consideraciones económicas y una tecnología adecuada;
2. se considere la conversión de la deuda como un mecanismo para generar fondos para los sectores;
3. se estimule la discusión sobre la adopción del enfoque 20/20, como fuera propuesto inicialmente por el PDNU y la UNICEF, según el cual el 20% de la asistencia oficial para el desarrollo y el 20% de los recursos procedentes del presupuesto nacional son destinados al desarrollo social, incluyendo el agua potable y el saneamiento.

5. EL AGUA Y EL MUNDO -
la promoción del apoyo internacional

A fin de facilitar la ejecución de actividades nacionales, se urge a la comunidad internacional a:

1. apoyar la colaboración a nivel nacional como instrumento esencial para el éxito del desarrollo de estrategias por sectores y las iniciativas para la movilización social;
2. otorgar consideración especial a los países colaboradores que hayan desarrollado o estén desarrollando estrategias nacionales para la gestión de los recursos hídricos que tengan en cuenta las opiniones de los interesados y presten total consideración a los ecosistemas y las estructuras socioeconómicas;
3. concentrarse en las regiones necesitadas, reconociendo que se debería prestar atención especial a Africa;
4. acentuar el papel y la importancia de las organizaciones internacionales y la cooperación bilateral en el apoyo de programas de creación de capacidades en países en desarrollo y solicitar a la Junta Ejecutiva del PNUD que considere la introducción de un componente de agua y saneamiento en el Programa Capacidad 21 del PNUD;
5. solicitar a la Comisión de Desarrollo Sostenible que estudie la manera en que las instituciones existentes pueden crear oficinas de distribución regionales para el intercambio de datos e información, y de reforzar el papel de la cooperación al desarrollo y otros fondos de ayuda para el agua potable y el saneamiento ambiental;
6. renovar los mecanismos de colaboración en apoyo del incremento de iniciativas regionales, como SAARC, OAU, ASEAN, CEPAL, y promover la colaboración conjunta para alcanzar los objetivos;
7. promover y estimular el papel y el interés de las Comisiones Regionales de las Naciones Unidas en el campo del agua y el saneamiento ambiental, sin prejuzgar el actual proceso de descentralización bajo la responsabilidad del Secretario General;
8. promover y apoyar acciones nacionales:
 - dirigidas a lograr cambios de comportamiento; y
 - referidas a los papeles que desempeñan las comunidades, el gobierno y otros interesados.

Igualmente se recomienda:

9. organizar conferencias internacionales en el futuro, tales como la Cumbre Mundial para el Desarrollo Social, la Conferencia sobre Población y Desarrollo, la Cuarta Conferencia Mundial de la Mujer, HABITAT II y otras que se ocupen de las cuestiones relevantes sobre el desarrollo y la gestión de los recursos de agua, y en particular los relacionados con el abastecimiento de agua, el saneamiento ambiental y la dimensión sanitaria de la

calidad de los recursos hídricos;

10. que la Comisión para el Desarrollo Sostenible, en la revisión prevista para 1997, efectúe un análisis de los avances en el desarrollo y la ejecución de las recomendaciones del Programa 21 referentes al agua potable y el saneamiento ambiental;
11. que el sistema de las Naciones Unidas continúe los esfuerzos de evaluación científica de los recursos hídricos mundiales, incluyendo proyecciones de necesidades y disponibilidad de agua;
12. reconocer la contribución positiva del Consejo de Colaboración sobre Agua Potable y Saneamiento como foro mundial y socio colaborador entre profesionales de los países y de agencias internacionales de ayuda, organizaciones no gubernamentales, asociaciones profesionales así como instituciones de información, investigación y estudio, contribuyendo al fortalecimiento del Consejo y fomentando su papel defensor;
13. a fin de evitar una crisis de agua, existe una necesidad urgente de movilizar, dentro del contexto establecido por el Capítulo 33 del Programa 21, recursos financieros apropiados, utilizando todos los recursos y mecanismos disponibles y aumentando al máximo la disponibilidad y flujo libre de recursos adicionales para ejecutar este Programa de Acción;
14. que la Comisión de las Naciones Unidas para el Desarrollo Sostenible, en su segunda sesión, considere la necesidad de fortalecer los mecanismos existentes para la coordinación de actividades del sistema de las Naciones Unidas en el campo de los recursos hídricos, para contribuir a la ejecución del programa de acción adoptado por esta Conferencia, teniendo en cuenta la responsabilidad primaria del Secretario General en la coordinación entre las agencias; y que la Comisión para el Desarrollo Sostenible recomiende a ECOSOC la consideración de esta cuestión en su segmento de coordinación en 1995;
15. que las asociaciones profesionales internacionales, tales como AIDE o AICA, estimulen el establecimiento y el desarrollo de asociaciones profesionales nacionales.

Se sugiere a las agencias internacionales de ayuda que:

16. evalúen el grado en que sus programas contribuyan efectivamente a:
 - (a) la gestión integrada de recursos hídricos,
 - (b) el fortalecimiento de instituciones nacionales;
17. desarrollen mecanismos de suministro de programas y de préstamos que deberán tener en cuenta la crisis en el área de agua potable y saneamiento ambiental;
18. estimulen la acción del Consejo Colaborativo de Suministro de Agua y Saneamiento, en asociación con los organismos públicos interesados y organizaciones no gubernamentales, hacia el fortalecimiento de sus actividades y, donde sea pertinente,

adoptar las medidas necesarias para la expansión de sus actividades o para constituirse en un foro o consejo mundial más integral sobre el agua, abarcando los diversos aspectos del sector del agua, y estimular asimismo al Consejo para remita a sus miembros para abril de 1995, el informe sobre cualquier progreso alcanzado en este tema.

ПРЕТВОРЕНИЕ В ЖИЗНЬ ПОВЕСТКИ ДНЯ 21 ВЕКА КОНФЕРЕНЦИИ ООН ПО
ОКРУЖАЮЩЕЙ СРЕДЕ И РАЗВИТИЮ

КОНФЕРЕНЦИЯ МИНИСТРОВ ПО ПРОБЛЕМАМ ПИТЬЕВОЙ ВОДЫ И УЛУЧШЕНИЯ
СОСТОЯНИЯ ОКРУЖАЮЩЕЙ СРЕДЫ

22 и 23 марта 1994г., Нордвьяк, Нидерланды

Мы, министры,¹ собравшись в Нордвьяке, Нидерланды, 22 и 23 марта 1994г. на конференцию министров по проблемам питьевой воды и улучшения состояния окружающей среды, рассмотрев и обсудив проблему, на основе документов конференции, перечисленных в Приложении 2,

1. ПОДТВЕРЖДАЕМ, ЧТО:

Нашей задачей является нахождение путей помощи нашим правительствам по претворению в жизнь Главы 18 Повестки дня 21 века.

1.1 В этой связи мы подчеркиваем необходимость целостного управления водными ресурсами. Глава 18 призывает к следующему:

- целостному управлению пресной водой как конечным и уязвимым ресурсом и к интеграции планов и программ водного сектора в рамках национальной экономической и социальной политики; и
- восприятию воды как неотъемлемой составляющей части экосистемы, природного ресурса и социального и экономического товара, количество и качество которого определяют природу его использования;

1.2 Касаясь проблем питьевой воды и улучшения состояния окружающей среды, мы привлекаем внимание к тому, что в Главе 18 подтверждается необходимость, сформулированная на Глобальной Консультации по безопасной питьевой воде и коммунальной гигиене на 1990-е годы в Дели в 1990г., предоставлять на гарантированной основе доступ к безопасной воде в достаточных количествах и к адекватной коммунальной гигиене, подчеркивая подход "лучше по-немногу для всех, чем много для некоторых". Глава 18 подтверждает приверженность правительств четырём руководящим принципам Нью-Дели:

- защита окружающей среды и защита здоровья за счет комплексного управления водными ресурсами и жидкими и твёрдыми отходами;

¹Список стран и организаций, представленных на Конференции смотри в Приложении 1.

- организационные перемены , способствующие развитию комплексного подхода и включающие изменения в процедурах, отношении, поведении и полное участие женщин в соответствующих организациях всех уровней;
- общинное управление службами, поддержанное мерами по укреплению местных организаций, осуществляющих водохозяйственные и санитарно-гигиенические программы;
- разумная финансовая политика, основывающаяся на лучшем управлении имеющимися активами, и широкое применение подходящих технологий.

1.3 В качестве механизма претворения в жизнь программ, основанных на этих принципах, Глава 18 подчеркивает необходимость:

- создавать потенциал, на всех административных уровнях, включающий организационное развитие, координацию, человеческие ресурсы, участие общины, медицинское и гигиеническое просвещение и грамотность, которые являются важными инструментами в применении стратегий;
- определить источники финансирования для покрытия значительных расходов, связанных с проектами;
- использовать технологии, отвечающие нуждам той общины, которой это касается, и ограничениям, вызванным условиями, выдвинутыми этой общиной.

2. ПРИЗНАЕМ, ЧТО:

Многие страны стоят перед водным кризисом.

2.1 Взрывчатый рост городских центров, манера такой эксплуатации естественных ресурсов, которая не может продолжаться бесконечно, неконтролируемая индустриализация, возрастающий спрос на воду для производства продовольствия, растущее население, не имеющее доступа к соответствующей коммунальной гигиене, привели к прогрессирующему истощению и деградации запасов пресной воды. Многие из настоящих образцов использования воды не являются бесконечными. Всё возрастающие затраты на развитие всё более отдалённых источников пресной воды угрожают экономическому развитию, в то время как видимые, так и менее видимые последствия безрассудного сброса отходов и неадекватная коммунальная гигиена распространяют нищету, болезни и смерть. Недостаток воды и трения, им вызываемые, особенно в конфликтующих претензиях на трансграничные ресурсы, создают потенциальную угрозу миру.

2.2 Быстрое ухудшение качества воды и пониженное количество

имеющейся пресной воды находятся под непосредственным влиянием природных процессов и человеческой деятельности. Чтобы обеспечить непрерывное снабжение безопасной питьевой водой и защитить целые водоразделы, требуются согласованные действия на всех фронтах, включая сельское хозяйство, лесное хозяйство, транспорт, промышленность, городское и пространственное планирование, планирование роста населения и производство электричества. Хотя города всё больше признаются в качестве мест социального прогресса и экономического роста, миллионы городских жителей не имеют доступа к безопасной питьевой воде и адекватной коммунальной гигиене. Имеется острая нужда расширить охват городских бедняков в смысле их доступа к гарантированным запасам воды и гигиене.

Для того, чтобы удовлетворить хотя бы основные потребности в воде и коммунальной гигиене, кризис может и должен быть разрешён.

2.3 Обязательства, взятые на себя Правительствами в Главе 18 Повестки дня 21 века, предлагают новую надежду многим миллионам их сограждан, которые страдают от высокого уровня заболеваемости, бедности и унижения, потому что они не имеют доступа к безопасным запасам питьевой воды и адекватным средствам коммунальной гигиены. Средняя мировая дань смерти, шесть тысяч детей каждый день из-за недостатка безопасной воды и отсутствия коммунальной гигиены, является трагическим напоминанием об острой необходимости превратить обязательства Глав государств, принятые ими в Рио-де-Жанейро, в позитивные и согласованные действия.

2.4 Долгосрочная цель остаётся прежней "безопасная питьевая вода и коммунальная гигиена для всех". Доступ к адекватным воде и санитарному обеспечению – это основная потребность, которую нужно удовлетворить. Это должно сопровождаться обязательством использовать воду эффективно и избавляться от отходов способом, сохраняющим окружающую среду для блага будущих поколений. Это является предпосылкой существенного прогресса в направлении достижения общих целей здоровья для всех, снижения уровня бедности, защиты окружающей среды и человеческого развития. Для достижения этих целей программы по водоснабжению и коммунальной гигиене должны быть подогнаны под возможности местного окружения поддерживать их, под местные социально-экономические и культурные условия и нужды, и под наличие ресурсов. Различия в нуждах, работе, влиянии мужчин и женщин и получаемых ими выгодах должны быть приняты во внимание.

Нужны перемены – действовать по привычке недостаточно.

2.5 Международная декада питьевой воды и санитарного обеспечения (1981– 1990) имела результатом пропорциональное увеличение зоны действия, но дала всего лишь

несущественный импульс уменьшению общего числа людей, не имеющих доступа к услугам. Главные причины этого определены следующим образом: рост населения, недостаток политической поддержки, недостаточное участие общества, ограниченная мобилизация ресурсов для инфраструктурных проектов, в частности, в городских районах, плохая эксплуатация и техническое обслуживание установленных систем и, в ряде случаев, недостаточное внимание к мелкомасштабным низкочувствительным проектам, которые были бы более подходящими, нежели крупномасштабные инфраструктурные проекты. Во многих странах коммунальная гигиена, коммуникация и гигиеническое просвещение, необходимые для достижения изменений в поведении людей, в свою очередь нужных для достижения наибольших выгод от улучшений в водоснабжении, не являются приоритетами.

Декада научила всех вовлеченных тому, что программы водоснабжения и коммунальной гигиены должны быть основаны на сотрудничестве, включающем всех заинтересованных (потребителей – особенно женщин, общинные ассоциации, местные, региональные и центральные органы управления, агентства общественного и частного сектора и неправительственные организации). Роль правительства – создать регулирующие и поддерживающие структуры. Это включает определение и применение на практике стандартов питьевой воды и сточных вод, и необходимую поддержку на всех уровнях, для того, чтобы дать возможность местным товариществам предоставлять местные услуги, соответствующие выраженным нуждам потребителей и их готовности платить, способствовать сбалансированному распределению вкладов, влияния и выгод. Национальные финансовые институты и международные агентства поддержки играют ключевую роль в поддержке стратегий, улучшающих положение людей, лишенных привилегий. Вышеназванные стратегии должны быть рентабельны, основываться на реальных потребностях общин и организованы так, чтобы защищать критические водные экосистемы и водосборные площади.

Нам нужно использовать наши ресурсы – людей, воду и финансы – более эффективно.

- 2.6 Уроки, извлечённые из Международной декады питьевой воды и санитарного обеспечения (1981–1990) дают повод для уверенности в том, что, на основе обязательств, принятых в Рио-де-Жанейро, могут быть сделаны правильные изменения, достаточное количество ресурсов может быть мобилизовано, и могут быть начаты программы действия для достижения более эффективного, подходящего и стабильного прогресса в достижении национальных целей "водоснабжение и средства гигиены и санитарии для всех". Преодоление расстояния между потребностями и доступными фондами подразумевает изменение.

Шесть ниженазванных перемен будут очень способствовать достижению этих целей.

- . перенаправление инвестиций на финансово доступную и не наносящую вреда окружающей среде деятельность, улучшающую положение людей, не имеющих доступа к услугам;
- . увеличение эффективности использования имеющихся фондов и мобилизация новых фондов из существующих и новых источников, включая правительственные агентства и внешние агентства поддержки и потребителей;
- . мобилизация местных общин на программы самопомощи;
- . реалистическая калькуляция цен на воду и санитарные услуги для всех потребителей, учитывающая их финансовые возможности;
- . снижение высоких потерь воды во многих городах, и в сельскохозяйственном и промышленном потреблении;
- . способствование сохранению воды путём её обработки и вторичного использования, признание того факта, что обработанные сточные воды являются потенциально ценным источником воды, и борьба с индустриальным загрязнением.

Также очень важно, чтобы международные органы и правительства придавали большее значение деятельности по исследованию и развитию, направленной на достижение прорывов в поиске более доступных в финансовом отношении технологий водоснабжения и защиты окружающей среды.

2.7 Неэффективная поставка воды и санитарных услуг в домашние хозяйства и острая нехватка воды и её загрязнение во всем мире требуют немедленного ответа. Понимая, что проблемы водоснабжения и коммунальной гигиены варьируют в своей сущности и проявляются прежде всего на местном и региональном уровне, делегаты признают, что эти проблемы по своему масштабу поистине являются глобальными. Следовательно, необходима согласованная и скоординированная международная реакция для достижения наиболее эффективного потребления водных и финансовых ресурсов.

3. СЛЕДОВАТЕЛЬНО, ПРЕТВОРЯЯ ЭТИ ВЗГЛЯДЫ В ПРАКТИКУ В СВОИХ СОБСТВЕННЫХ СТРАНАХ, ИЛИ ПОСРЕДСТВОМ МЕЖДУНАРОДНОГО СОТРУДНИЧЕСТВА, МЫ:

3.1 снова подчеркнем обязательство осуществления Повестки дня 21 века и ту решающую роль, которую усовершенствованные программы водоснабжения и защиты окружающей среды будут играть в улучшении здоровья, защите ресурсов пресной воды

и в достижении стабильного развития; будем настаивать на том, чтобы управлению водными ресурсами вообще и питьевой воде, коммунальной гигиене и воспитанию, направленному на изменение поведения, в частности, была бы предоставлена необходимая финансовая поддержка как необходимым компонентам достижения взаимных и многочисленных выгод, как то: уменьшения количества заболеваний, сохранения окружающей среды и стимулирования экономического и человеческого развития; займёмся следующей проблемой: хотя международные финансовые ресурсы по поддержке программ водоснабжения и коммунальной гигиены увеличились, всё ещё существуют факторы, препятствующие направлению ресурсов в развивающиеся страны, этими вопросами надо заниматься, помимо прочего, в рамках общих дискуссий по проблемам международного сотрудничества;

- 3.2 будем поддерживать развитие и осуществление стратегий питьевой воды и коммунальной гигиены, на всех соответствующих уровнях, включая международный уровень; развивать эти секторные стратегии в контексте более широких стратегий устойчивого управления водными ресурсами и защиты окружающей среды и координировать их на национальном и местном уровнях с мероприятиями по развитию секторов здравоохранения, образования, сельского хозяйства, лесного хозяйства, городского и сельского развития и других относящихся к этому вопросу секторов, для того, чтобы гарантировать качество и количество водных ресурсов повсюду в мире;
- 3.3 подчеркнём, что изменения в поведении людей, развитие базы знаний, обучение специалистов, сотрудничество всех заинтересованных и полная преданность делу всех партнеров, создание необходимых мощностей являются основными базовыми элементами будущего успеха; будем добиваться создания в ускоренных темпах облегчающих, поддерживающих и регулирующих структур, способствующих максимальному участию местных агентств и частных лиц в программах улучшения их окружающей среды; будем добиваться придания повышенного значения программам развития ведомственного укрепления и человеческих ресурсов, которые создадут организационные и управленческие возможности для местного снабжения и содержания услуг, связанных с водой и коммунальной гигиеной.
- 3.4 будем отстаивать применение надежных экономических принципов распределения и калькуляции цен водных ресурсов, основанных на принципе "вода как экономический и социальный товар", в то же время признавая, что вода является основной человеческой потребностью; будем добиваться более эффективного использования доступных водных и финансовых ресурсов посредством направления инвестиций в проекты, наиболее отвечающие целям устойчивого развития:

технологически оправданные, экономически осуществимые, не наносящие вреда окружающей среде и социально приемлемые; предоставим право поставщикам воды установить справедливые тарифы на воду для сельскохозяйственного, промышленного и домашнего потребления, поощряющие сохранение и эффективное потребление; будем искать способы, благодаря которым местные общины получили бы улучшенный доступ к финансовым ресурсам и поощрялось бы общинное управление услугами, связанными с водой и коммунальной гигиеной; будем поощрять потенциальное вовлечение частного сектора в финансирование, строительство, функционирование и техническое обслуживание предприятий водоснабжения и коммунальной гигиены; будем поощрять международные агентства внешней поддержки, включая многосторонние и региональные банки развития, примем директивы инвестирования в сектор воды и коммунальной гигиены, согласующиеся с директивами Главы 18 Повестки дня 21 века;

- 3.5 примем программы по уменьшению количества отходов и предотвращению загрязнения в его источнике – как средства избежания дорогостоящих восстановительных действий в будущем – для сохранения и защиты водосборных площадей, источников водоснабжения, качества воды, водных экосистем и рыбных мест; и с целью сокращения потерь воды и сохранения будущих ресурсов; будем внедрять такие тарифные структуры, которые сокращают количество отходов, увеличивают возмещение расходов и предотвращают загрязнение, например, отменим льготные тарифы на большое количество потребленной воды, и увеличим плату за водно-канализационное оборудование и обработку сточных вод, также штрафы за неподчинение; будем предоставлять воду для новых потребностей по методам, благоприятным для окружающей среды, включая сохранение воды, повторное потребление и надлежащее управление, в частности в оросительном секторе;

4. МЫ, МИНИСТРЫ, СЛЕДОВАТЕЛЬНО:

- 4.1 ОДОБРЯЕМ К БЕЗОТЛАГАТЕЛЬНОМУ ОСУЩЕСТВЛЕНИЮ ПРИЛАГАЕМУЮ ПРОГРАММУ ДЕЙСТВИЙ, в качестве последующего шага к устойчивому развитию услуг по снабжению питьевой водой и коммунальной гигиене.

Эта программа извлекает выводы из опыта Международной Декады питьевой воды и санитарного обеспечения и воплощает в жизнь Главу 18 Повестки дня 21-го века. Основные уроки заключаются в следующем: создание потенциала является главным фактором, и мы должны:

- а. способствовать общественному и политическому осознанию важности приближающегося водного кризиса;

- б. определить реалистические цели на пути к достижению общей цели "безопасная питьевая вода и адекватные санитарные условия для всех"; иметь подходящие сроки, определённые правительствами для выполнения данной Программы Действий;
- в. организовать более эффективные и действенные системы снабжения питьевой водой и защиты окружающей среды во всех наших странах;
- г. мобилизовать имеющиеся ресурсы в каждой стране, получая их от потребителей, частного и общественного сектора и осуществляя подход "загрязнитель платит", в рамках рентабельных систем финансирования водоснабжения и коммунальной гигиены ;
- д. способствовать мобилизации международных финансовых ресурсов и передаче технологии, с целью дополнения и поддержки национальных ресурсов.

Программа также включает в себя новые подходы, созданные Повесткой дня 21 века. Мы должны уделить особое внимание:

- а. целостному управлению водными ресурсами, принимая во внимание всё, что вода может означать для окружающей среды, социальной и экономической политики и пространственного планирования;
- б. созданию отношений сотрудничества между всеми заинтересованными сторонами, с тем, чтобы отражать различные потребности мужчин, женщин и молодежи и вовлекать все слои общества в решение проблем, затрагивающих их;
- в. изменению моделей поведения, способствующих достижению целей снабжения чистой водой и создания адекватных санитарно-гигиенических условий, и изменению роли Правительств, с целью наилучшего использования имеющихся ресурсов, целостного подхода к управлению водными ресурсами на как можно более низком соответствующем уровне и перехода к системе управления, зависящего от спроса;
- г. внедрению в практику управления водными ресурсами как социальным и экономическим товаром;
- д. поиску технологических и нетехнологических инноваций, с целью защиты наших исчерпаемых и уязвимых водных ресурсов, и преодоления расстояния между физическими, человеческими и финансовыми ресурсами, с одной стороны, и растущим спросом на воду и потребностях в коммунальной гигиене, с другой стороны, особенно вызванными урбанизацией и

индустриализацией в развивающемся мире.

В ДОПОЛНЕНИЕ - Мы:

- 4.2 Отмечаем, что встреча экспертов по проблемам воды и здоровья в неблагополучных городских районах, проходившая в Софии-Антиполис, Франция, с 21 по 23 февраля 1994г. приняла рекомендации, которые будут представлены её участниками Комиссии по устойчивому развитию на её 2-ой сессии в мае 1994г.
- 4.3 Принимая во внимание особые проблемы небольших островных государств, передадим данное Заявление и Программу действий на рассмотрение Конференции ООН по устойчивому развитию небольших островных развивающихся государств, которая будет проходить на Барбадосе с 24 апреля по 6 мая 1994г.
- 4.4 Рекомендуем, что для того, чтобы предотвратить водный кризис, существует острая необходимость мобилизовать, в рамках, установленных Главой 33 Повестки дня 21 века, адекватные финансовые ресурсы, используя все имеющиеся источники и механизмы и достигая максимального наличия и беспрепятствованного перетока дополнительных ресурсов для выполнения данной Программы действий.
- 4.5 Рекомендуем, в свете необходимости координировать, концентрировать и консолидировать международную деятельность, относящуюся к проблемам питьевой воды и коммунальной гигиены, в соответствии с целостным управлением водными ресурсами следующее:
 - а. рассмотрение мер по активизации этого процесса, в частности, Комиссией по устойчивому развитию;
 - б. укрепление существующих институтов и организаций, способствующих достижению этой цели, в соответствии с данной Программой.
- 4.6 Рекомендуем, чтобы Комиссия по устойчивому развитию рассмотрела возможность принятия данной Программы Действий на своей 2-ой сессии в мае 1994г.

1. ВОДА И ЛЮДИ-

осуществление сотрудничества и изменений в поведении

Как утверждает Повестка дня 21 века, для устойчивого развития необходимо сотрудничество между всеми партнёрами. Усовершенствованное сотрудничество поможет достичь лучших результатов, разрешить конфликты и будет способствовать интеграции.

Для поощрения и поддержки этого партнёрского подхода, решения о снабжении водой и коммунальной гигиене должны основываться на диалоге, принимающем во внимание убеждения и потребности людей в сельских и городских общинах, и на том, как они могут управлять мощностями, технически их обслуживать и платить за них. Поведение на политическом и правительственном уровне, так же как и в секторах воды и коммунальной гигиены, должно измениться в требуемом направлении, с тем, чтобы способствовать этому партнёрскому подходу и поддерживать его.

Поэтому на соответствующем уровне правительства должны:

1. добиваться общественного осознания и социальной мобилизации по отношению к питьевой воде и коммунальной гигиене посредством следующего:
 - (а) стимулируя взаимное понимание правительством, местными властями, операторами коммунальных служб, потребителями, особенно женщинами, молодёжью и другими заинтересованными лицами, проблем воды и уязвимости водных ресурсов и водной среды;
 - (б) способствуя пониманию всеми участниками того факта, что водные ресурсы становятся всё более и более скудными, и что необходимо ими пользоваться рациональным, бережливым образом и установить или улучшить водоочистительные системы для предотвращения загрязнения воды; и усвоить соответствующие санитарно-гигиенические привычки, предотвращающие бактериологическое загрязнение.
 - (в) обеспечивая основные знания, относящиеся к сохранению и использованию воды, отдавая приоритет вопросам гигиены.
 - (г) способствуя пониманию того, что вода является социальным и экономическим товаром, что она имеет экономическую ценность, по отношению к которой должна применяться соответствующая

ценовая политика, включающая использование экономических рычагов;

- (д) разрабатывая и осуществляя программы участия по обучению и коммуникации, направленные на достижение изменений в моделях поведения, в планировании, разработке проектов/строительстве, функционировании и техническом обслуживании.
- (е) обеспечивая программы обучения в соответствии с регулируемыми стандартами для всех уровней кадров, ответственных за управление питьевой водой, коммунальную гигиену и обработку сточных вод, во всех соответствующих органах, отражающих новые подходы и принципы;

2. совершенствовать сотрудничество и участие сторон; в этой связи необходимы следующие первоочередные действия:

- (а) поощрение политиков, собственников, подрядчиков и операторов систем водоснабжения и коммунальной гигиены включать местные общины, организации потребителей, женщин и неправительственные организации в планирование и процедуру принятия решений, относящихся к этим системам, с тем, чтобы использовать местные знания, особые навыки и различные точки зрения;
- (б) разработка правовой и организационной структуры для поддержки такого сотрудничества и участия;
- (в) разработка планов создания потенциала всех участвующих сторон, включая предоставление возможности общинам, в особенности, женщинам, посредством надлежащего обучения на общественном уровне, представительства всех потребителей в Коммунальных Правлениях, создания Советов Потребителей и развития механизмов консультаций с заинтересованными сторонами;
- (г) обеспечение доступа к информации о проектах, программах, разработке политики, признание прав и ответственности частных лиц и общин, и обеспечение подотчётных, прозрачных процессов принятия решений и стандартов качества воды с возможностями апелляции и проведения независимого анализа;

На региональном и международном уровнях:

1. разработают программы обмена информацией и опытом, особенно в областях обучения, образования, исследования, технологии и методов разработки и осуществления проектов;
2. попытаются обеспечить, чтобы Агентства Внешней Поддержки поддерживали программы общественного просвещения и создания необходимого потенциала, внедряли прозрачные и подотчётные механизмы принятия решений в пределах их учреждений, и поощряли общественное участие на всех уровнях разработки проектов, осуществления и управления;
3. разработают программы, как на национальном, так и международном уровнях, определяющие приоритеты в секторе водоснабжения и коммунальной гигиены и разработают скоординированные программы действий для пропагандирования сектора на всех уровнях – политическом, общественном, техническом и финансовом;
4. будут укреплять региональное сотрудничество, особенно между странами, имеющими сходные проблемы, такие, как пересекающие границу ресурсы воды, или находящимися в сходной ситуации, как например, небольшие островные государства;
5. разработают на национальном и международном уровнях согласованные программы действий по поддержке устойчивого развития водных ресурсов и защиты окружающей среды в небольших островных государствах.

2. ВОДА, ЗДОРОВЬЕ И ОКРУЖАЮЩАЯ СРЕДА – интеграция водной политики

Как это определено в Повестке дня 21 века, планирование и осуществление программ по питьевой воде и коммунальной гигиене должно проводиться в контексте целостной структуры развития водных ресурсов, применяя экосистемный подход к развитию и управлению водными ресурсами, включая показатели здоровья.

Поэтому, на соответствующем уровне, правительства:

1. проведут оценку водных ресурсов, с целью описи настоящей ситуации и определения проблем и препятствий в обеспечении услугами, относящимися к водоснабжению и коммунальной гигиене
2. разработают, рассмотрят или пересмотрят, в контексте национального плана устойчивого развития, согласующегося с Повесткой дня 21 века, мероприятия по управлению водным ресурсом и защите окружающей среды, включающие вопросы питьевой воды и коммунальной гигиены; эти мероприятия будут направлены на:
 - (а) признание того, что доступ к соответствующим услугам, связанным с водой и коммунальной гигиеной, является основной человеческой потребностью;
 - (б) необходимость сохранения и защиты количества и качества водных ресурсов, учитывая потребности количества и качества воды для удовлетворительного действия экосистем;
 - (в) обязанность эффективного использования воды, принимая во внимание вторичное использование и обработку сточных вод, и удаление отходов способом, который сохраняет окружающую среду для блага будущих поколений;
 - (г) структура для рационального распределения воды между конкурирующими областями потребления, включая питьевую воду, воду для промышленности, сельского хозяйства и гидроэнергетики;
 - (д) приведение национального потребления воды в соответствие с имеющимися ресурсами;
 - (е) вспомогательные политика и политические орудия

для поддержки наиболее оптимального использования воды и поддерживаемого управления ресурсами пресной воды.

ё) признание в планировании водоснабжения и коммунальной гигиены целей, связанных со здоровьем.

3. разработают, рассмотрят или пересмотрят к 1997г. и будут внедрять в контексте Национальной Стратегии Устойчивого Развития, соответствующей Повестке дня 21 века, меры по разрешению проблем питьевой воды и коммунальной гигиены, принимающие во внимание цели, поставленные на Всемирной встрече для защиты детей, с целью рационального и эффективного обеспечения и использования питьевой воды и средств коммунальной гигиены; эти мероприятия будут включать в себя:

(а) стратегии, улучшающие положение бедных и необслуживаемых;

(б) инвестиционные стратегии, включающие стратегии, улучшающие положение бедных в соответствии с их особыми потребностями в сельских и пери-городских областях;

(в) стратегию, основанную на понимании эффективного спроса и интеграции планов и программ водоснабжения и водно-канализационных мощностей;

(г) стратегию, планирующую более эффективное гигиеническое просвещение;

(д) установление реалистических стандартов качества и критериев для питьевой воды, для сточных вод и для обработанной воды;

(е) защиту и улучшение здоровья людей путём отдавания приоритетов странам, население которых подвергается наибольшему риску;

4. вовлекут в осуществление стратегий все заинтересованные стороны, как то: потребителей, неправительственные организации, ученых, женские организации и местных предпринимателей, профессионалов и профессиональные ассоциации;

5. создадут там, где она еще не существует, общенациональную систему контроля за питьевой водой и состоянием окружающей среды, с целью контроля усилий по данной Программе Действий, а также и

других основных целей, полностью используя доступные системы контроля и информации, разрабатываемые существующей Программой Контроля Водоснабжения и Коммунальной Гигиены ВОЗ/ЮНИСЕФ;

6. создадут ценовую политику, направленную на поощрение эффективного потребления воды, в соответствии со следующими критериями:
 - (а) доступность на всех уровнях, учитывая соображения воздействия на здоровье;
 - (б) сохранение ресурса посредством управления спросом;
 - (в) использование принципа "загрязнитель платит";
7. снизят долю воды, потерянной в системе распределения, которая соответственно не служит конечным целям потребления, произведут оценку ведомственного, управленческого, организационного и функционального аспектов предприятий водоснабжения, с тем чтобы определить факторы, влияющие на существующее количество неучтённой воды.
8. будут поощрять разработку и использование технологий экономии и повторного использования воды, с целью уменьшения потребления воды промышленностью, сельским хозяйством и домашним хозяйством;
9. будут охранять природное качество как поверхностных, так и грунтовых вод, если осуществимо, используя комплексный подход к водному бассейну, включающий в себя:
 - (а) поддержку эффективному управлению водоразделами и создание водоохраных зон, примыкающих к источникам питьевой воды, с предписаниями, регулирующими использование особых природных ресурсов и практику сохранения, с целью доведения до минимума содержания проблемных веществ и другого воздействия промышленности, сельского хозяйства и домашних хозяйств;
 - (б) предотвращение стока в подземные и другие воды питательных веществ посредством обращения с землей в соответствии с поддерживаемой сельскохозяйственной практикой;
 - (в) правильное применение пестицидов, в

соответствии с положениями законодательства; постоянный поиск наиболее безвредных пестицидов и прекращение применения пестицидов, наносящих вред поверхностным и грунтовым водам; пропаганду и внедрение поддерживаемых сельскохозяйственных методов;

(г) учреждение предприятий по обработке сточных вод и вторичному использованию обработанной воды в рамках системы, не наносящей вреда окружающей среде; их планирование должно, где необходимо, сопровождаться оценкой их влияния на окружающую среду.

10. будут продвигать соответствующее развитие и использование нетрадиционных источников воды, как то: безопасное вторичное использование стоков, сбор дождевой воды, опреснение морской воды и солоноватых подземных вод, и защита традиционных источников;
11. будут активизировать сбор и анализ данных о здоровье, содействующих определению приоритетов и целей, связанных с водой и коммунальной гигиеной.
12. способствовать принятию соответствующих, специфичных для данной страны стандартов или директив по качеству питьевой воды, если они ещё не существуют, учитывая директивы ВОЗ о питьевой воде.

На региональном и международном уровне:

1. будут укреплять сотрудничество в управлении речным бассейном, в развитии транс-пограничных водных ресурсов, и по вопросам контроля загрязнения;
2. будут поощрять передачу технологии, в частности на региональной основе, в области стратегий сокращения потерь, технологий экономии воды и ее повторного использования;
3. достигнут договоренность об индикаторах, относящихся к состоянию водных ресурсов, что касается их функций и применения.

3. ВОДА И УЧРЕЖДЕНИЯ - организация обслуживания

Как это определено в Повестке дня 21 века, создание потенциала является фундаментальной деятельностью по созданию компетентных учреждений, обеспечиванию соответствующего числа квалифицированных кадров, подготовке всех заинтересованных сторон и предоставлению прав общинам стать полноценными партнерами в развитии сектора.

Поэтому, на соответствующем уровне, правительства:

1. сместят акцент в действиях правительств с предоставления услуг, связанных с водой и коммунальной гигиеной, на оказание содействие и регулирование действий других заинтересованных сторон посредством следующего:
 - (а) взяв ответственность за организацию контроля общенациональных систем информации и подготовку национальной оценки состояния питьевой воды; определяя политику и осуществляя руководство сектором;
 - (б) укрепив роль правительства в развитии правовых структур и его роль регулировщика, обеспечивающего эффективное соблюдение законов и предписаний, относящихся к воде;
 - (в) взяв на себя ответственность за адекватный контроль деятельности всех поставщиков услуг и других заинтересованных сторон; и
 - (г) рассмотрев возможности участия частного сектора (в частности, в эксплуатационных подразделениях) в предприятиях, занимающихся водоснабжением и санитарным обеспечением, при условии, что, помимо прочего, качество, эффективность, наличие по доступным ценам и учёт интересов потребителей гарантируются соответственными положениями, защищающими потребителей;
2. создадут координационные механизмы, на соответствующем уровне, с целью расширения межсекторного сотрудничества, будут проводить единую политику, усовершенствуют планирование и будут способствовать распространению относящейся к сектору информации;

3. увеличат инвестиции в программы создания потенциала, которые включают в себя укрепление организационных структур и развитие человеческих ресурсов, уделив при этом специфическое внимание интересам различных полов, поскольку это необходимо для создания организационных и управленческих возможностей на всех уровнях;
4. определят, поддержат и предоставят необходимые стимулы для организаций, которые должны больше ориентироваться на людей: собственность, принятие решений и ответственность за внедрение будут переданы на наиболее низкий соответствующий потребителю уровень;
5. создадут коммунальные предприятия для водоснабжения и санитарного обеспечения, способные действовать автономно, что касается их финансового и общего управления и исследований, эти предприятия должны обеспечивать гарантированность и эффективность услуг, постепенно добиваться покрытия расходов;
6. усовершенствуют общую и финансовую деятельность коммунальных предприятий, сделав их более подотчетными общественности и их функционирование – более прозрачным, включая предоставление доступа к информации и данным о качестве, и сделают возможными для общественности апелляционные процедуры в связи с их решениями;
7. с целью обеспечения наличия квалифицированных кадров, необходимых для планирования, управления и эксплуатации систем водоснабжения и коммунальной гигиены должны быть разработаны или усилены стимулы:
 - (а) для улучшения профессиональной и технической подготовки и образования;
 - (б) заняться вопросами планирования карьеры и установить соответствующие уровни зарплаты для удержания техников и специалистов на предприятиях;
 - (в) обеспечивать публикацию технических материалов, необходимых для поддержания профессиональных знаний, эффективного управления предприятиями и активного участия неправительственных организаций;
 - (г) основываясь на тщательном анализе интересов полов, увеличить роль женщин в планировании, управлении и функционировании, способствовать

активному вовлечению женщин в принятие решений по проблемам водоснабжения и коммунальной гигиены на микро- и макроуровнях;

8. поддержат создание многодисциплинарных профессиональных ассоциаций как важных вспомогательных средств для образования профессиональной сети, особенно для участия в установлении национальных стандартов и для организации распространения ноу-хау на национальной основе, также для объединения с международными профессиональными ассоциациями и извлечения пользы от их поддержки;
9. будут стимулировать разработку к 1998г. других индикаторов, помимо показателя охвата, как то: разработку индикаторов, относящихся к здоровью, воздействию на окружающую среду и поведению потребителей;
10. создадут или укрепят национальные центры ресурсов, включая национальные организации для накопления и распространения информации, прикладных исследований и технической поддержки контроля;
11. будут укреплять соответствующие здравоохранительные организации, которые, в координации с органами, занимающимися водоснабжением и санитарной гигиеной, осуществляют гигиеническое просвещение и поддерживают вовлечение общественности;

На региональном и международном уровне:

1. будут поощрять обмен информацией и создание сети между профессионалами сектора, профессиональными ассоциациями и неправительственными организациями, включая партнерские соглашения;
2. будут поощрять эффективное сотрудничество с соседствующими странами в управлении трансграничными водными ресурсами;
3. будут поощрять региональный обмен опытом, относящимся к организационным реформам.
4. укреплять международное сотрудничество, увеличивающее потенциал неправительственных организаций и их вовлечение в решение проблем питьевой воды и защиты окружающей среды, с целью улучшения планирования программ, управления и внедрения в практику.

4. ВОДА И МОБИЛИЗАЦИЯ ФИНАНСОВЫХ РЕСУРСОВ – создание активов для будущего

Для того, чтобы управление средствами снабжения питьевой водой и коммунальной гигиены было бы возможно на экономически надежной основе, весьма важно стремиться к наиболее действенному и эффективному использованию доступных фондов, как это определено в Повестке дня 21 века, в особенности принимая во внимание возрастание глобального спроса на питьевую воду и потребности в коммунальной гигиене, и тенденцию к уменьшению наличия внешних фондов для сектора.

Поэтому, на соответствующем уровне, правительства:

1. обеспечат беспристрастное и действенное финансовое управление системами водоснабжения и коммунальной гигиены посредством следующего:
 - (а) постепенно делегируя принятие решений и управление на как можно более низкий соответствующий уровень, имеющий достаточно квалифицированный персонал;
 - (б) организовав как можно быстрее систему тарифов таким образом (перекрестного субсидирования) или устанавливая цены на таком уровне, чтобы организации водоснабжения и коммунальной гигиены смогли бы действовать автономно в финансовом отношении, без неблагоприятного воздействия на основные нужды самых бедных;
 - (в) в свете возможного воздействия на неимущих, способствовать улучшению их ситуации благодаря осуществленным изменениям;
2. разработают подробные директивы для инвестиций в сектор питьевой воды и коммунальной гигиены, с целью рационализации развития и использования ресурса, направленные на, среди прочего:
 - (а) продолжение снабжения водой и организацию соответствующих санитарных условий в домашних хозяйствах во всех слоях общества, не наносящих вреда окружающей среде;
 - (б) уменьшение субсидий, но при этом принимая во внимание особые нужды самых бедных, чтобы обеспечить их доступ к безопасной воде;
 - (в) поощрение взаимовыгодных инвестиций, при экономии средств, при этом положение

потребителя должно улучшаться, и окружающая среда должна быть защищена;

- (г) направляя инвестиции в первую очередь в рентабельные, финансово доступные и подходящие технологии;
 - (д) постепенное избавление от неподходящих технологий;
 - (е) ремонт и техническое обслуживание существующих систем водоснабжения и коммунальной гигиены;
 - (ё) отдавание предпочтения более многочисленным и достаточным инвестициям в области водоснабжения, коммунальной гигиены, в особенности в городских и (пери-)городских районах, включая как водно-канализационное оборудование, так и пропаганду лучшей личной/семейной гигиены и лучшего пользования водоснабжением и коммунальной гигиеной;
3. будут исследовать и развивать новые, новаторские механизмы финансирования, включая частные капиталовложения, и используя местные ресурсы в максимальном объёме;
 4. стимулировать целостные подходы, включая меры по увеличению доходов сельской бедноты и городских бедняков, живущих на окраинах, добиваясь этого посредством механизмов кредитования, распределения земли и гарантий земельной собственности, с тем, чтобы уменьшить надобности в субсидиях.
 5. поощрять создание соответствующих тарифных систем в различных социально-экономических ситуациях, в различных ситуациях спроса на услуги, и посредством разных механизмов взимания платы, с целью включения покрытия расходов в программы водоснабжения и коммунальной гигиены, и в частности, с целью взимания платы с потребителя за расходы по восстановлению окружающей среды (либо посредством включения данного фактора в цену питьевой воды, или каким-либо другим способом);
 6. изучать и поощрять более эффективное использование и вторичное использование воды посредством экономических стимулов и включения расходов, относящихся к окружающей среде, в цены на питьевую воду и на воду, потребляемую для других целей;
 7. изучать возможности повторного использования обработанных сточных вод в сельском хозяйстве или в

качестве дополнительного источника воды;

8. допустят временные расхождения в уровнях обслуживания, предоставляемого в разных районах, с целью достижения возможно большего охвата как можно ранее, затем подведут эти уровни к одной точке, в той степени, в какой это позволяют ресурсы;
9. подчеркнут важность включения соображений функционирования установок и их технического обслуживания в разработку проектов.

На международном уровне настоятельно необходимо, чтобы:

1. Агентства Внешней Поддержки, включая Всемирный Банк и региональные банки, отдавали бы предпочтение проектам, направленным на более широкий охват, как в снабжении питьевой водой, так и в защите окружающей среды, и проектам, которые, по меньшей мере, пытаются поддержать существующий охват, с учетом экономических соображений и соображений соответствующей технологии;
2. рассмотреть списывание долгов на определённых условиях как механизма генерирования средств в секторах;
3. предлагается дискуссия по принятию подхода 20/20, как первоначально предложенного Программой развития ООН и ЮНИСЕФ, при котором 20% официальной помощи на развитие и 20% национальных бюджетных ресурсов направляются на социальное развитие, включая питьевую воду и коммунальную гигиену.

**5. ВОДА И МИР –
поощрение международной поддержки**

С целью облегчения осуществления национальных мероприятий, международное сообщество призывается:

1. поддерживать сотрудничество на уровне стран, как основной инструмент успешной разработки стратегий сектора и инициатив социальной мобилизации;
2. уделить особое внимание содействующим странам, которые разработали или разрабатывают национальные стратегии по управлению водными ресурсами, включающие мнения всех заинтересованных сторон и полностью принимающие во внимание экосистемы и социально-экономические структуры;
3. сфокусировать внимание на нуждающихся регионах, признав, что особое внимание должно быть уделено Африке;
4. подчеркнуть роль и важность международных организаций и двустороннего сотрудничества в поддержке программ создания потенциала в развивающихся странах и просить Исполнительный Совет Программы развития ООН рассмотреть компонент водоснабжения и коммунальной гигиены, в рамках *Saracity 21* Программы развития ООН;
5. обратиться в Комиссию по устойчивому развитию с просьбой рассмотреть то, как существующие институты могут способствовать созданию региональных центров анализа и синтеза информации для обмена данными и информацией, и как усилить роль сотрудничества по развитию и других вспомогательных фондов в решении проблем питьевой воды и защиты окружающей среды;
6. обновить механизмы сотрудничества в смысле поддержки увеличивающегося количества региональных (много-государственных) инициатив, таких как SAARC (Ассоциация южно-азиатских стран по региональному сотрудничеству), OAU (Организация Африканского Единства), АСЕАН, ЕСЛАС (Экономическая комиссия стран Латинской Америки и Карибского бассейна), и содействовать международному сотрудничеству в достижении целей;
7. поощрять и стимулировать роль Региональных Комиссий ООН и интерес, продемонстрированный ими, к сфере водоснабжения и охраны окружающей среды, не

предвосхищая результаты продолжающегося процесса децентрализации под руководством Генерального секретаря;

8. поощрять и поддерживать национальные действия:
 - направленные на достижение изменений в моделях поведения; и
 - касающиеся распределения ролей между общинами, правительством и другими заинтересованными сторонами.

Далее рекомендуется следующее:

9. чтобы будущие международные конференции, такие, как Всемирная встреча по социальному развитию, Конференция по населению и развитию, Четвертая Всемирная Конференция Женщин, НАВИТАТ II и другие занялись вопросами, относящимися к развитию водных ресурсов и управлению ими, в частности, относящимися к снабжению водой и коммунальной гигиене и аспекту здоровья, связанному с качеством запасов воды;
10. Комиссия по устойчивому развитию, в обзоре 1997г. оценила бы прогресс в осуществлении рекомендаций Повестки дня 21 века, касающихся питьевой воды и коммунальной гигиены;
11. чтобы ООН продолжала проводить научную оценку глобальных водных ресурсов, включая прогнозы потребности в воде и её наличия;
12. признавая позитивный вклад Совета сотрудничества по проблемам водоснабжения и коммунальной гигиены как всемирного форума и органа сотрудничества между профессионалами из разных стран и из агентств внешней поддержки, неправительственных организаций, профессиональных объединений и информационных, исследовательских и академических учреждений, оказать помощь в укреплении Совета и усилении его пропагандистской роли;
13. чтобы предотвратить водный кризис, существует острая необходимость мобилизовать, в рамках, установленных Главой 33 Повестки дня 21 века, адекватные финансовые ресурсы, используя все имеющиеся источники и механизмы и достигая максимального наличия и беспрепятственного перетока дополнительных ресурсов для выполнения данной Программы действий.
14. чтобы Комиссия по устойчивому развитию, на её второй сессии, рассмотрела необходимость укрепить существующий механизм координации действий системы ООН в сфере водных ресурсов с целью помощи по

внедрению Программы Действий, принятой на данной Конференции, принимая во внимание основную ответственность Генерального секретаря за координацию действий внутри Организации, и чтобы Комиссия по устойчивому развитию рекомендовала Еcosoc рассмотреть этот вопрос на своей встрече в 1995г.;

15. чтобы международные профессиональные ассоциации, такие, как IWSA (Международная ассоциация по водоснабжению) и IAWQ стимулировали учреждение и развитие национальных профессиональных ассоциаций.

Международные агентства поддержки приглашаются:

16. оценить степень, в которой их программы эффективно способствуют:
 - (а) целостному управлению водными ресурсами,
 - (б) укреплению национальных институтов;
17. разработать механизмы выполнения программы и предоставления займов, которые должны принимать во внимание кризис водоснабжения и окружающей среды;
18. поощрять Совет сотрудничества по проблемам водоснабжения и коммунальной гигиены, в сотрудничестве с заинтересованными правительственными органами и неправительственными организациями, имеющими отношение к делу, предпринимать необходимые шаги для расширения его деятельности и превращения в более всеобъемлющий всемирный форум или Совет, включающий в себя различные аспекты водного сектора, также просить Совет представить отчет его членам о прогрессе, достигнутом в этом вопросе, в апреле 1995г.

١. المياه والناس

تحقيق التغيير في المشاركة والسلوك

إن التعاون بين جميع الشركاء ضروري للتنمية الباقية كما جاء في جدول الأعمال ٢١. وينبغي أن يبدأ أسلوب معالجة التعاون بفهم الاحتياجات الحقيقية للمستخدم. فالتعاون الأفضل سوف يساعد في تحسين الأداء من أجل حل المشاكل وتنمية التكامل.

ولتمكين ومساندة أسلوب المشاركة هذا يجب أن تركز القرارات عن موارد المياه والصرف الصحي على الحوار المتعلق باعتقادات واحتياجات الناس في المجتمعات الريفية والمدنية وعلى ما يمكنهم إدارته وإبقائه ودفع تكلفته. ويجب أن يتغير السلوك على المستوى السياسي والحكومي وبالمثل في قطاعات موارد المياه والصرف الصحي بقدر ما يتطلبه الأمر بحيث يمكن ويساند أسلوب المشاركة.

ولذلك ينبغي على الحكومات على المستوى المناسب:

١. تنمية الوعي العام والتعبئة الاجتماعية تجاه مياه الشرب والصرف الصحي بالطرق التالية:
 - (أ) تنشيط الفهم المتبادل بين الحكومات والسلطات المحلية ومشغلي المرافق والمستهلكين وخصوصاً النساء والشباب والمعنيين الآخرين بمشاكل المياه وعرضة موارد المياه والبيئة المائية للضرر؛
 - (ب) زيادة الوعي بين جميع المعنيين بأن موارد المياه تقل باستمرار وبأنه من الضروري استعمالها بطريقة اقتصادية ومنطقية وإنشاء وتحسين أنظمة معالجة مياه الصرف من أجل منع تلوث موارد المياه، وتبني عادات صحية مناسبة كعامل أساسي لمنع التلوث البكتريولوجي.
 - (ج) ضرورة ادراك أهمية المحافظة على المياه واستخدامها مع اعطاء الأوكويه للمساائل الصحية .
 - (د) تنمية الإدراك بأن المياه سلعة إجتماعية وإقتصادية وأن لها قيمة إقتصادية ينبغي أن تعين لها سياسة تسعير مناسبة، وتتضمن استخدام الأجهزة الإقتصادية؛
 - (هـ) صياغة وتنفيذ برامج مشاركة للتعليم والإتصال تهدف إلى تحقيق تغييرات في الأساليب السلوكية وفي التخطيط والتصميم/البناء وتشغيل وصيانة العمليات؛
 - (و) توفير البرامج التدريبية تبعاً لمقاييس منظمة على جميع المستويات للموظفين المسؤولين عن مياه الشرب والاصحاح وإدارة معالجة مياه الصرف في جميع السلطات المعنية بحيث تعكس أساليب المعالجة الجديدة والمبادئ الجديدة؛

٢. تحسين المشاركة والإشتراك ولذلك يجب أن تكون النقاط التالية من النشاطات التي لها الأولوية::

- (أ) تشجيع مخططي ومالكي ومتعهدي ومشغلي أنظمة مصادر المياه والصرف الصحي على إشراك الجمعيات المحلية ومنظمات المستخدمين والنساء

والمنظمات غير الحكومية في تخطيط هذه الأنظمة وفي إجراءات إتخاذ القرارات المتعلقة بها حتى يستفيع من المعرفة المحلية ومن المهارات الخاصة ومن وجهات النظر المختلفة:

(ب) تكوين الهيكل التنظيمي والقانوني لمساندة تلك المشاركات والإشترابات مثلاً عن طريق

(ج) تكوين خطة لتنمية قدرات جميع المعنيين بما في ذلك تخويل الجمعيات وبالخصوص النساء عن طريق التدريب المناسب على مستو الجمعية وقثيل جميع المستخدمين في مجالس إدارة المرافق وإنشاء مجالس المستخدمين وتكوين الآليات الإستشارية مع المعنيين:

(د) توفير المأتي للمعلومات عن المشاريع والبرامج والسياسات التي تعترف بحقوق وواجبات الأفراد والجماعات وتوفر عمليات لإتخاذ القرارات تكون واضحة ومسؤولة ومقاييس لنوعية المياه تتضمن إمكانيات للتظلم والمراجعة المحايدة.

٣. أما على المستوى الإقليمي والدولي:

١. تكوين برامج تبادل معلومات وخبرات وبالذات فيما يختص بالتدريب والتعليم والبحث والتقنية وكيفيات تصميم المشاريع والتنفيذ:
٢. السعي إلى كسب عون وكالات الدعم الخارجية لصالح برامج التعليم العام وبناء القدرات وتنفيذ أليات واضحة ومسؤولة لإتخاذ القرارات في داخل هيئاتها وترويج المشاركة العامة في جميع مستويات تصميم وتنفيذ وإدارة المشاريع
٣. تكوين برامج مجمعة على كلا من المستويين القومي والدولي تقدم أولويات لقطاع المياه والصرف الصحي وتكون برامج عمل منسقة لمناصرة القطاع على جميع المستويات - السياسي العام والفني والمالي
٤. تعزيز التعاون الإقليمي وبالخصوص بين البلاد التي لها مشاكل مماثلة مثل مصادر مياه مشتركة الحدود أو أوضاع مشابهة مثل دول الجزر الصغيرة.
٥. تكوين برامج موحدة على المستوى القومي والدولي لمساندة تنمية باقية لموارد المياه والصرف الصحي في دول الجزر الصغيرة.

٢- المياه والصحة والبيئة

تكامل سياسة المياه

كما نص عليه جدول الاعمال (٢١) فيجب ان يكون تخطيط وتنفيذ برامج مياه الشرب والصرف الصحي في سياق هيكل كلي شامل (هولستي) لتنمية موارد المياه واستخدام الاسلوب الايكولوجي لادارة موارد المياه بما في ذلك الابعاد الصحيه .

ولذلك فعلى المستوى المناسب ينبغي على الحكومات :

- ١- ان تتعهد بالقيام بتقييم موارد المياه من اجل عمل جرد للوضع الحالي وتشخيص المشاكل والعواقب في توفير خدمات موارد المياه والصرف الصحي .
 - ٢- وفي اطار الاستراتيجيه القوميہ للتنمية المستديمه المتلائمه جدول الاعمال(٢١) تكوين ومراجعة او تنقيح الاجراءات لادارة موارد المياه ولحماية البيئه تتضمن تنمية مياه الشرب والصرف الصحي .
وتهدف الى:
 - أ- الاعتراف بأن الحصول على خدمات كافيه من المياه والصرف الصحي من الحقوق الاساسيه الانسانيه .
 - ب- الحاجه الى المحافظه على نوعية وكمية مصادر المياه وحمايتها باعتبارها من متطلبات النظام الايكولوجي للمياه .
 - ج- الالتزام بالاستخدام الفعال للمياه مع اعتبار اعاده استخدام مياه الصرف الصحي والتخلص من الفضلات بطريقة تحفظ البيئه لصالح الاجيال القادمه .
 - د- انشاء هيكل تخصيص منطقي للمياه بين الاستخدامات المتنافسه تتضمن مياه الشرب والصناعه والزراعه والقوه الكهربائيه المائيه ملائمه الاستهلاك القومي للمياه مع الموارد المتاحة .
 - و- سياسات تدعيم وأجهزة سياسيه لمساندة أفضل استخدام ممكن للمياه والاداره المستديمه لموارد المياه العذبه .
 - ز- الاعتراف بالاهداف المتعلقة بالصحة في تخطيط موارد المياه والصرف الصحي .
- ٣- تطوير ومراجعة او تنقيح الاجراءات المتبعه في مياه الشرب والصرف الصحي وذلك بحلول عام ١٩٩٧ والتنفيذ في اطار استراتيجيه التنميه القوميہ بحيث تتوافق مع جدول الاعمال (٢١) وبالأخذ في الاعتبار الاهداف التي يرمي اليها موعترقة العالم للاطفال بقصد التوريد المنطقي والفعال ، وكذا الاستخدام لمياه الشرب والصرف الصحي وينبغي ان تتضمن هذه الاجراءات على التالي:-

- أ- استراتيجيات لخدمة الفقراء والمفتقرين للخدمة
- ب- استراتيجيات استثمار تتضمن استراتيجيات لخدمة الفقراء تبعاً لاحتياجاتهم الخاصة في المناطق الريفية والقريه من المدن.
- ج- استراتيجية تخطيط ترتكز على فهم الطلب الفعال ودمج برامج وخطط موارد المياه والمجاري.
- د- استراتيجية تخطيطيه للمزيد من التعليم الصحي الفعال.
- هـ- انشاء مقاييس ومحكات واقعيه لنوعية مياه الشرب ومحطات معالجة مياه المجاري واعادة استخدام المياه بعد المعالجه.
- و- حماية وتعزيز الصحة الانسانيه عن طريق اعطاء الأولويه لمجموعات السكان المتعرضه لأكبر خطر.
- ٤- عند تنفيذ الاستراتيجيات يجب اشراك جميع المعنيين مثل المستهلكين والمنظمات غير الحكوميه والعلماء ومنظمات النساء واصحاب الاعمال المحليين والمهنيين والجمعيات المهنيه.
- ٥- انشاء نظام مراقبه واسع لمياه الشرب والصرف الصحي في المناطق التي تفتقر اليه وذلك من اجل مراقبه المساعي المتعلقه ببرنامج العمل هذا بالاضافه الى الاهداف الرئيسيه الأخرى مع الاستفادة الكامله من نظم المراقبه المفتوحه المتيسره وأنظمة مساندة المعلومات التي تطورها البرامج الحاليه لمراقبه مصادر المياه والصرف الصحي لـ *WHO/UNICEF* وبرامج مراقبه الصرف الصحي.
- ٦- تكوين سياسات تسعير مصوبه الى ترويج الاستخدام الفعال للمياه وفقاً للمحركات التاليه :-
- أ- قدرة الحصول عليه في جميع المستويات بالأخذ في الاعتبار التقديرات الصحيه.
- ب- المحافظه على الموارد بواسطة ادارة الطلب
- ج- تطبيق مبدأ (الملوث يدفع)
- ٧- خفض من نسبة المياه المفقوده المتسربه من نظام التوزيع والتي تضيع ولا تستخدم أحداً من المستخدمين الاخيرين بما في ذلك تقييم اللوجوه النظاميه والاداريه والمنظميه والتشغيليه لوكالات المياه من اجل تشخيص العوامل المؤثره على المستويات الموجوده للمياه المختلفه غير المبرره حسابياً.
- ٨- ترويج تصميم واستخدام تقنيات الاقتصاد في المياه واعادة استخدامها من اجل خفض من الاستخدام الاستهلاكي للمياه في الصناعه والزراعه والاستخدام الاهلي.
- ٩- المحافظه على النوعيه الطبيعيه لكلا من المياه السطحيه والجوفيه والتطبيق عن طريق معالجة حوض المياه عند الامكان ، بما في ذلك :-
- أ- مزاوله ادارة مقاسم مياه فعاله وانشاء مناطق حماية المياه والاصحاح بجوار منابع موارد مياه الشرب مع اتخاذ تدابير تحكم الاستعمال الخاص للموارد الطبيعيه وممارسات حافظه لتقليل اختلاطها بالمواد التي تسبب مشاكل والتأثيرات الأخرى

من الصناعة والزراعة والاهالي •

ب- الحد من دخول السماد في المياه الجوفيه او في كتل المياه الاخرى عن طريق استخدام الارض بما يتوافق مع العادات الزراعيه الصحيه الباقيه •

ج- استخدام المبيدات بالطريقه الصحيه ووفقا لشروط قانونيه ، والبحث باستمرار عن المبيدات الاقل ضرر ومنع استعمال التي تبين انها مضره للسطح او للمياه الجوفيه بما في ذلك ترويج وتنفيذ التقنيات الزراعيه الباقيه •

د- انشاء محطات معالجة مياه الصرف واستخدام المياه المعاد تطهيرها في داخل نظام صحيح من الناحيه البيئيه ومصاحبتها بتقييم عن تأثيره على البيئه عندما تكون مناسبه •

10- ترويج التنميه المناسبه والاستخدام السليم لمنابع غير تقليديه لمرارد مياه مثل الاستخدام الثاني الامن لمياه الصرف الصحي المعالجه وجمع مياه المطر وتحليله ومياه البحر والمياه الجوفيه قليله الملوحة والمحافظة على الموارء التقليديه •

11- تعزيز جمع وتحليل البيانات الصحيه للمساعده في اعطاء الاكويه وتصويب المياه والصرف الصحي •

12- ترويج تطبيق مقاييس خاصه بكل بلد ان لم توجد او قواعد توجيهيه لنوعيه مياه الشرب بالأخذ في الاعتبار قواعد المنظمه العالميه للصحه التوجيهيه للمياه •

أما على المستوى الاقليمي والدولي:-

1- تعزيز التعاون في ادارة احواض الانهار وتنمية موارد المياه المشتركة الحدود والتحكم في التطوٲ •

2- ترويج انتقال التقنيه وبالخصوص على اساس اقليمي في مجال استراتيجيات الخفض من الفاقد وتقنيات الاقتصاء في المياه واعادة الاستخدام •

3- الاتفاق على موشرات تصف حالة المياه بالنسبة الى وظائفها واستخداماتها

٣. المياه والهيئات تنظيم توفير الخدمة

وفقا لما نص عليه جدول الأعمال ٢١، يعتبر بناء السعة نشاطا جوهريا من أجل خلق هيئات قادرة ولتوفير الأعداد اللازمة من الموظفين المؤهلين ومجهيز جميع المعنيين وتمكين الجمعيات بحيث تصبح شريكه بالكامل في تنمية القطاع.

ولذلك فعلى المستوى المناسب ينبغي على الحكومات:

١. أن تغير التشديد على دور الحكومات، عندما يكون مناسبا وعندما يتعلق بخدمات المياه والصرف الصحي إلى دور الممكن والضابط للمعنيين الآخرين بواسطة:
 - (أ) تحمل مسؤولية تنظيم المراقبة وإنشاء أنظمة معلومات شاملة للأمة وتحضير تقارير قومية لمياه الشرب ووضع سياسات وتوجيه للقطاع؛
 - (ب) تعزيز دور الحكومة في تكوين هيكل قانونية وأيضا كعامل ضبط يضمن التطبيق الفعال لقوانين المياه وتنظيماتها؛
 - (ج) تحمل مسؤولية مراقبة كفاءة الأداء لنشاطات جميع موردي الخدمة والمعنيين الآخرين عندما يكون ذلك مناسبا؛
 - (د) النظر في إمكانات إشراك القطاع الخاص (بالخصوص في أجزاء التشغيل) في توريد المياه والصرف الصحي بشرط اعتبار المصالح الاجتماعية وضمان الجودة والفعالية والتيسر بأسعار عادلة من بين غيرها بواسطة تنظيمات مناسبة لحماية المستخدمين؛

٢. إنشاء آليات تنسيق في المستوى المناسب من أجل تعزيز تعاون القطاعات بين بعضها وإنشاء سياسة موحدة وتحسين التخطيط وتنمية المشاركة في المعلومات المختصة بالقطاع؛

٣. زيادة الاستثمار في برامج بناء القدرات تشمل التقوية التنظيمية وتنمية الموارد البشرية، مع تكريس اهتمام خاص بالجنس، الضرورية لخلق قدرات إدارية وتنظيمية على جميع المستويات؛

٤. تشخيص ومساندة وتوفير الحوافز لجعل الهيئات تتجه أكثر للناس بمعنى أن تحيل الملكية واتخاذ القرارات ومسؤولية التنفيذ إلى أدنى مستو مناسب الأقرب للمستخدم؛

٥. خلق مرافق لمصادر المياه والصرف الصحي تتمكن من العمل المستقل بالأخص بالنسبة إلى الإدارة المالية والكلية والبحوث والتي تضمن بقاء وفعالية الخدمات التي يمكن أن تتجه تدريجيا تجاه إسترداد التكلفة؛

٦. تحسين الأداء المالي والكلية للمرافق وجعلها خاضعة لتبرير نفسها أمام الجمهور وجعلها أكثر وضوحا للجمهور بما في ذلك توفير المأتى للمعلومات وبيانات الجودة والسماح بالقيام بإجراءات تظلم من الجمهور ضد قراراتها؛

٧. ومن أجل ضمان توفر الأطقم الماهرة الضرورية للتخطيط والإدارة وتشغيل أنظمة مصادر المياه والصرف الصحي ينبغي تكوين أو تعزيز حوافز من أجل:
- (أ) تشجيع التعليم والتدريب المهني والفني؛
- (ب) إنشاء تخطيط المستقبل الوظيفي ومستويات رواتب ملائمة للاحتفاظ بالطواقم الفني والحرفي؛
- (ج) ضمان نشر المادة الفنية الضرورية لمساندة الخبرة المهنية والإدارة الفعالة للمرافق والإشتراك الفعال من المنظمات غير الحكومية؛
- (د) وعلى أساس الدراسات النوعية تعزيز دور المرأة في التخطيط والإدارة والتشغيل، وزيادة الإشتراك الفعال للنساء في إتخاذ القرارات عن مسائل المياه والصرف الصحي على المستوى الكبير والصغير.

٨. تشجيع تأسيس جمعيات مهنية متعددة المجالات كدواعم رئيسية لتكوين شبكة إتصال؛ بالخصوص للمشاركة في صياغة مقاييس قومية وتنظيم نشر المعرفة العملية على أساس قومي وللإتضام للجمعيات المهنية الدولية والإستفادة من مساندها؛

٩. تنشيط تنمية مؤشرات أساسية غير مؤشر التغطية مثل تكوين مؤشرات تتعلق بالصحة وبالتأثير على البيئة وسلوك المستخدم؛ وذلك بحلول عام ١٩٨٨.

١٠. تأسيس أو تقوية مراكز موارد قومية بما في ذلك هيئات قومية لجمع المعلومات ونشرها وللبحوث التطبيقية والمساندة الفنية للمراقبة؛

١١. تعزيز هيئات الصحة المعينة التي تنفذ التعليم الصحي وتساند إشتراك الجماعات بالتعاون مع سلطات مصادر المياه والصرف الصحي؛

أما على المستوى الإقليمي والدولي؛

١. ترويج تبادل المعلومات والوصل الشبكي بين مهنيي القطاع والجمعيات المهنية والمنظمات غير الحكومية بما في ذلك ترتيبات التوأمة؛

٢. ترويج التعاون الفعال بين البلاد المتجاورة في إدارة مصادر المياه المشتركة.

٣. ترويج التبادل الإقليمي للخبرات عن الإصلاح التنظيمي.

٤. تعزيز التعاون الإقليمي الذي يرفع من قدرة المنظمات غير الحكومية وإشراكها في مياه الشرب والصرف الصحي من أجل تحسين برنامج التخطيط والإدارة والتنفيذ.

٤ . المياه وتعبئة الموارد المائية بناء الأصول للمستقبل

طبقا لما نص عليه جدول الأعمال ٢١ فمن أجل تمكين تسهيلات موارد مياه الشرب والصرف الصحي من أن تعمل على أساس إقتصادي صحيح فهو حيوي جدا أن نهدف الى الإستخدام الأكثر فعالية وكفاءة للأموال المتيسرة وخصوصا بالنظر إلى الطلب العالمي المتزايد لمياه الشرب والصرف الصحي والإتجاه الحالي نحو التيسر المتناقص للأموال الخارجية للقطاع.

ولذلك فعلى المستوى المناسب يجب على الحكومات:

١. أن تضمن الإدارة المالية العادلة والفعالة لأنظمة موارد المياه والصرف الصحي بواسطة:
 - (أ) التطوير التدريجي لإتخاذ القرارات والإدارة إلى أدنى مستو مناسب الذي به الطاقم الكفء بالعدد الكافي؛
 - (ب) تنظيم بأسرع ما يمكن نظام التسعير بطريقة معينة (التدعيم العرضي) أو وضع الأسعار على ذلك المستوى بحيث تتمكن منظمات موارد المياه والصرف الصحي من العمل بإستقلال بالنسبة إلى الجانب المالي دون أن تؤثر تأثيرا عكسيا على المورد الأساسي لشديدي الحاجة؛
 - (ج) تمكين الفقراء من الإستفادة من التغيرات وذلك في ضوء الرفع المحتمل عليهم من جرائنها؛

٢. تكوين قواعد توجيهية مفصلة للإستثمارات في قطاع مياه الشرب والصرف الصحي من أجل تخصيص توليد وإستعمال الموارد بقصد الأشياء التالية من بين غيرها:
 - (أ) التوفير المستمر للمياه والصرف الصحي للإستخدام الأهلي لجميع قطاعات المجتمع؛
 - (ب) تقليل التدعيم مع الأخذ في الإعتبار الإحتياجات الخاصة لشديدي الحاجة للتأكد من حصولهم على مياه آمنة •
 - (ج) تشجيع الإستثمارات المبنية على المنفعة المتبادلة التي تدخر في المال وتحسن من موقف المستخدم وتحمي البيئة؛
 - (د) تصويب أولويات الإستثمار على التكنولوجيات المناسبة والمقدور عليها والمجدية التكلفة؛
 - (هـ) الإلغاء المرحلي للتكنولوجيات غير المناسبة؛
 - (و) إصلاح وصيانة الأنظمة الحالية لموارد المياه والصرف الصحي؛
 - (ز) إعطاء الأولوية لإستثمارات أكثر وكافية لموارد المياه والصرف الصحي وبالأخص في المناطق المدنية وضواحيها بما في ذلك التسهيلات المادية والتعليم لترويج الصحة الشخصية/العائلية والإستخدام الأفضل لموارد المياه والصرف الصحي؛

٣. إستكشاف وتنمية آليات تمويل مبتكرة بما في ذلك التمويل الخاص وتسخير الموارد المحلية إلى أقصى ما في مقدورها

٤. تنشيط المعالجات المتكاملة بما في ذلك نشاطات لتحسين دخول سكان ضواحي المدن والريف الفقراء عن طريق آليات للحصول على سلفيات وتوزيع الأرض وتأمين ملكية الأراضي من أجل تقليل التدعيّات.

٥. تشجيع أنظمة التسعير، في أوضاع إجتماعية إقتصادية مختلفة وفي أوضاع طلب خدمة مختلفة وعن طريق آليات جمع مختلفة بقصد إدخال فكرة إسترداد التكلفة في برامج موارد المياه والصرف الصحي وبالخصوص بقصد تحميل المستخدم تكلفة الصرف الصحي (كان ذلك بضم هذا العامل في ثمن مياه الشرب أو بأي طريقة أخرى)؛

٦. دراسة وترويج المزيد من الإستخدام الفعال وإعادة الإستخدام عن طريق الحوافز الإقتصادية وإدخال التكاليف البيئية في أسعار مياه الشرب وفي أسعار المياه المستخدمة لأغراض أخرى؛

٧. دراسة إمكانيات إعادة إستخدام مياه الصرف المعالجة للزراعة أو كمورد إضافي للمياه؛

٨. قبول التغييرات المؤقتة في مستواخدمة المقدمة في مناطق مختلفة بحيث تتم أكبر تغطية ممكنة وبأسرع ما يمكن ثم تحسين تلك المستويات لتصل إلى مستو موحد بقدر ما تسمح به الموارد؛

٩. التشديد على أهمية إدخال التشغيل وإعتبارات الصيانة في تصميم المشاريع.

أما على المستوى الدولي فنوصي:

١. أن تعطي وكالات الدعم الخارجية بما فيها البنك العالمي والبنوك الإقليمية الأولوية، عندما يكون مناسباً، لمشاريع التكنولوجيا المصوبة نحو التغطية الأوسع من حيث موارد مياه الشرب والصرف الصحي وللمشاريع التي تميل إلى إبقاء التغطية الحالية على ما هي عليه على الأقل مع الإعتبارات الإقتصادية والإعتبارات التقنية المناسبة.

٢. ينبغي إعتبار تبادل القروض كآلية لتوليد الأموال للقطاع؛

٣. تشجيع المناقشة حول طريقة المعالجة ٢٠/٢٠ كما إقترحتها UNICEF و UNDP في بادئ الأمر التي بها تسخر ٢٠ في المئة من مساعدة التنمية الرسمية ODA و ٢٠ في المئة من موارد الميزانية القومية من أجل التنمية الإجتماعية بما في ذلك مياه الشرب والصرف الصحي؛

٥. المياه والعالم ترويج الدعم الدولي

ومن أجل تسهيل تنفيذ النشاطات القومية نوصي الجماعة الدولية بأن:

١. تساند التعاون على مستو الدولة على أنه عامل أساسي للتحضير الناجح لإستراتيجيات القطاع ومبادرات التعبئة الإجتماعية؛
٢. تعطي تقديرا خاصا لمساعدة البلاد التي أعدته أو التي تعد إستراتيجيات قومية لإدارة موارد المياه التي تتضمن آراء المعنيين والتي تعمل حساب الأنظمة الإيكولوجية والهياكل الإجتماعية الإقتصادية؛
٣. تركز على المناطق المحتاجة والإعتراف بأنه يجب إعطاء أفريقيا إهتماما خاصا؛
٤. التشديد على دور وأهمية المنظمات الدولية والتعاون الثنائي الأطراف في مساندة برامج بناء القدرات في البلاد النامية والطلب من اللجنة التنفيذية لـ UNDP النظر في سياق برنامج ٢١ للقدرات في عنصر المياه والصرف الصحي؛
٥. تطلب من لجنة التنمية المستتيمه للأمم المتحدة أن تعتبر كيف يمكن للهيئات الحالية أن توفر مراكز إقليمية لتجميع وتوزيع وتبادل البيانات والمعلومات وفي كيفية تعزيز دور التعاون في التنمية وأموال دعم أخرى لموارد المياه والصرف الصحي ؛
٦. تجريد آليات التعاون تجاه مساندة زيادة المبادرات الإقليمية مثل LAC , ASEAN , OAU , SAARC وترويج التعاون المشترك لتحقيق الأهداف؛
٧. ترويج وتنشيط دور اللجان الإقليمية للأمم المتحدة في مجال المياه والصرف الصحي دون توقع نتيجة عملية اللا مركزية القائمة المستمرة تحت رعاية السكرتير العام؛
٨. ترويج ومساندة الأعمال القومية:
 - المصوبة إلى إحداث التغييرات في أنماط السلوك؛ و
 - التي تتعلق بأدوار المجتمعات والحكومة والمعنيين الآخرين.
٩. المؤتمرات الدولية المستقبلية مثل قمة العالم للتنمية الإجتماعية والمؤقر حول السكان والتنمية ومؤقر النساء العالمي الرابع و"هابيتات II" وغيرها بأن تواجه المسائل الخاصة بإدارة وتنمية موارد المياه وبالمخصوص المسائل التي تتعلق بموارد المياه والصرف الصحي وبالأبعاد الصحية لجودة المياه؛

بالإضافة إلى أننا نوصي:

١٠. ستعمل لجنة التنمية المستديمه في مراجعتها للعام ٩٧ تقييما للتقدم في تنفيذ توصيات جدول الأعمال ٢١ الخاصة بمياه الشرب والصرف الصحي؛
١١. أن يستمر نظام الأمم المتحدة في التعهد بالقيام بتقييم علمي عالمي لموارد المياه بما في ذلك المرتسمات للاحتياجات للمياه وتيسرها؛
١٢. الإعتراف بالانجازات الإيجابية لمجلس التعاوني لموارد المياه والصرف الصحي كندوة عامة ومشاركة بين المهنيين من البلاد ومن وكالات الدعم الخارجية والمنظمات غير الحكومية والجمعيات المهنية وهيئات العلم والبحوث والمعلومات وتوفير المساعدة لتعزيز اللجنة وتقوية دورها المناصر؛
١٣. ومن أجل منع أزمة مياه، يجيب تعبئة موارد مالية كافية في داخل الهيكل المقام من الفصل ٣٣ من جدول الأعمال ٢١ عن طريق إستخدام جميع المنابع والآليات المتيسرة وتكبير التيسر إلى أقصى حد وتسهيل المجرى السلس لموارد إضافية لتنفيذ برنامج العمل هذا.
١٤. أن تعتبر لجنة التنمية المستديمه للأمم المتحدة في جلستها الثانية الحاجة لتعزيز الآليات الحالية لتنسيق نشاطات نظام الأمم المتحدة في مجال موارد المياه بقصد المساعدة في تنفيذ برنامج العمل الذي تبناه هذا المؤتمر، مع الأخذ في الإعتبار المسؤولية الأولية للسكرتير العام لتعاون بين الوكالات وأن توصي لجنة التنمية المستديمه أن تعتبر ECOSOC هذه المسئلة في مقطعها التنسيقي في ١٩٩٥؛
١٥. حث الجمعيات المهنية الدولية مثل IWSA و IWAQ على تنشيط إنشاء وتكوين جمعيات مهنية قومية.

وندعو وكالات الدعم الدولية إلى:

١٦. تقييم الدرجة التي تسهل بها برامجها فعليا في:
 (أ) الإدارة المتكاملة لموارد المياه
 (ب) تعزيز الهيئات القومية؛
١٧. تكوين برامج تسليم وآليات تسليم تأخذ في إعتبارها بالضرورة أزمة موارد المياه والصرف الصحي؛
١٨. تشجيع اللجنة التعاونية لموارد المياه والصرف الصحي بالإشتراك مع الهيئات العامة والمنظمات غير الحكومية المعنية للقيام بالدراسات الضرورية نحو تعزيز نشاطاتها عند الحاجة وبتأخذ الخطوات اللازمة لتوسيع نشاطاتها أو تشيبت نفسها ك لجنة أو ندوة مياه عالمية أكثر شمولا تشرك الوجوه المتنوعة لقطاع المياه وكذلك تشجيع اللجنة لتقديم قرارها لإعضائها في أبريل ١٩٩٥ بخصوص أي تقدم قد تم إنجازه في هذا الصدد.

تنفيذ جدول الأعمال ٢١ أنسد المؤتمر الوزاري لمياه الشرب والصرف الصحي ٢٢ و ٢٣ مارس ١٩٩٤. نورديك، هولندا

نحن، الوزراء^١ في اجتماعنا في نورديك بهولندا في ٢٢ و ٢٣ مارس ١٩٩٤ في المؤتمر الوزاري عن مياه الشرب والصرف الصحي وبعد مراجعتنا ومناقشتنا للمسئلة على أساس مستندات المؤتمر كما جاء سردا في الملحق ٢،

١. نؤكد، التالي:

تتكون مهمتنا من إيجاد طرق لمساندة حكوماتنا في تنفيذ الفصل ١٨ من جدول الأعمال ٢١. ١.١
و نرغب في هذا الصدد أن نشدد على الإحتياج إلى توحيد إدارة موارد المياه. وينادي الفصل ١٨ بالتالي:

- * الإدارة الهولية (الكل أكبر من مجموع الأجزاء) للمياه الغذبة على أنها مصدر محدود ومتعرضة للضرر، وتكامل برامج وخطط مياه القطاع في داخل إطار السياسة القومية الإقتصادية والإجتماعية.
- * الإدراك بأن المياه جزء متكامل من النظام الإيكولوجي ومورد طبيعي وسلعة إجتماعية وإقتصادية تتحدد طبيعة إستخدامها على كميتها ونوعيتها.

١.٢ وفي السياق الخاص لمياه الشرب والصرف الصحي نرغب في لفت النظر إلى التوكيد المتضمن في الفصل ١٨ على الحاجة المشخصة في الإستشارة العالمية عن المياه الآمنة والصرف الصحي لنيو دلهي في ١٩٩٠ لتوفير على أساس باقي المأتى إلى مياه آمن بكميات كافية والإصحاح السليم مع التشديد على طريقة المعالجة " القليل للجمع فضلا عن المزيد للقليل". ويورط الفصل ١٨ الحكومات في الإلتزام بالمبادئ التوجيهية الأربعة لنيو دلهي:

- * حماية البيئة والمحافظة على الصحة عن طريق الإدارة المتكاملة لموارد المياه والنفايات السائلة والصلبة؛
- * إعادة التشكيل النظامي لترويج أسلوب المعالجة المتكامل وإدخال التغييرات في الإجراءات والوضعيات والسلوك والإشتراك بالكامل للنساء في جميع مستويات هيئات القطاع؛
- * إدارة الجماعات للخدمات وتدعيمها بإجراءات لتعزيز الهيئات المحلية في تنفيذ وإستمرار برامج المياه والصرف الصحي؛
- * الممارسات المالية الصحيحة المحققة عن طريق تحسين الإدارة للأصول الموجودة والإستخدام الواسع للتكنولوجيات المناسبة؛

١.٣ ويشدد الفصل ١٨ على إستعمال الآليات التالية لتنفيذ البرامج المرتكزة على هذه المبادئ:

- * الحاجة إلى بناء القدرات على جميع المستويات الإدارية تتضمن التنمية التنظيمية والتنسيق والموارد الإنسانية وإشتراك الجماعات والتعليم الصحي والتثقيف الذي يعتبر أحد أساسيات تنفيذ الإستراتيجيات؛
- * والضرورة المترتبة عليها إلى تعيين وسائل تمويل التكاليف الكبيرة المتعلقة بها؛

إنظر في الملحق رقم ١ لقائمة أسماء البلاد والمنظمات المشثلة في المؤتمر.

* ضرورة استخدام التكنولوجيات المستجيبة للإحتياجات والعوائق المفروضة من المجتمع المعني.

٢. وندرك التالي:

تواجه بلاد كثيرة أزمة مياه.

٢.١ أدى النمو الانفجاري للمراكز المدنية والإستغلال المفرط للموارد الطبيعية والتصنيع العشوائي والطلب المتزايد للمياه للإنتاج الغذائي ونمو تعداد السكان دون الصرف الصحي المناسب إلى التدهور التدريجي والإستنفاد للمياه الغذبة. وكثير من الأنماط الحالية لإستخدام المياه ليس باقيا. وتهدد الأسعار المتصاعدة لتسخير مصادر مياه عذبة جديدة، المتزايدة في التباعد عن مكان الإستهلاك، النمو الإقتصادي بينما ينشر كلا من التخلص الهجسي من النفايات والصرف الصحي غير الكافي، المرئي منه والخفي، القذارة والمرض والموت. وتشكل قلة الماء والتوترات التي تسببها وبخاصة وبالنسبة للطلبات المتنافسة على إدارة الموارد المشتركة عبر الحدود تهديدات محتملة للسلام.

٢.٢ وتؤثر العمليات الطبيعية والنشاطات الإنسانية مباشرة على التدهور السريع لنوعية المياه وانخفاض تيسر الماء العذب. ومن أجل حماية بقاء مصدر آمن لمياه الشرب ومقاسم مياه كاملة يجب إتخاذ نشاطات مشتركة على جميع الجبهات بما في ذلك الزراعة والنقل والغابات والصناعة والتخطيط المدني والمساحي وتخطيط السكان وتوليد الكهرباء. وبالرغم من الإدراك المتزايد بأن المدن هي أماكن التقدم الإجتماعي والنمو الإقتصادي يفتقر الملايين من السكان إلى المأتى إلى مياه آمنة وصرف صحي كاف. وتوجد حاجة ملحة لزيادة التغطية المستمرة للمياه والصرف الصحي لسكان المدن الفقراء.

ولإشباع الإحتياجات الأساسية للمياه والصرف الصحي على الأقل، يمكن بل يجب حل الأزمة.

٢.٣ وتمطي التعهدات التي إتخذتها الحكومات في الفصل ١٨ من جدول الأعمال ٢١ أملا جديدا للملايين العديدة من مواطنينهم الذين يعانون من مستويات لا تطاق من الامراض والبؤس والذل لأنهم يفتقرون المأتى لمورد آمن من مياه الشرب والوسائل الكافية من الصرف الصحي. ويقدر معدل الموت العالمي بستة آلاف طفل في اليوم لإفتقارهم المياه الآمنة والصرف الصحي وهي تذكرة حزينة للحاجة الحرجة لتحويل تعهدات رؤساء الدول في ريو وفي قمة العالم للأطفال إلى حركة إيجابية ومشتركة.

٢.٤ ولا يزال الهدف طويل الأجل هو "مياه شرب آمنة والصرف الصحي للجميع". ويعتبر المأتى الكافي للمياه والصرف الصحي حقا أساسيا يجب توفيقته. ولكن يصحبه إلتزام إستخدام المياه بفعالية والتخلص من الفضلات بطريقة تحمي وتبقي البيئة لصالح الأجيال القادمة. ويعتبر ذلك شرطا ميدنيا للتقدم الملموس نحو تحقيق الأهداف المشتركة. الصحة للجميع وتهوين الفقر وحماية البيئة والتطور الإنساني والإقتصادي. ولتحقيق هذه الأهداف يجب تفصيل برامج المياه والصرف الصحي على مقدور المحيط المحلي لإستمرار مساندتها ووفقا للأوضاع والإحتياجات الإجتماعية الإقتصادية المحلية والشروط والإحتياجات الثقافية وعلى تيسر الموارد. وينبغي مراعاة الإختلافات في الإحتياجات والعمل والتأثير والفوائد للرجال والنساء.

التغير ضروري وإستمرار الحال كما هو لا يكفي.

٢.٥ وحقق عقد مياه الشرب والإصحاح الدولي (١٩٨١ - ١٩٩٠) زيادة متناسبة في التغطية لكنه لم يؤثر إلا القليل بالنسبة إلى خفض مجموع الناس غير المخدومين. وكانت الأسباب الرئيسية هي: نمو

تعداد السكان والإفتقار إلى التعبئة السياسية وعدم إشراك المجتمع، والتعبئة المحدودة للموارد لمشاريع الأسيس، وبالخصوص للمناطق المدنية والتشغيل، والصيانة الضئيلة للأنظمة الموجودة وفي بعض الحالات عدم المبالاة بالمشاريع الصغيرة الرخيصة التي قد تكون أكثر جدوى من مشاريع الأسيس الكبيرة. وفي بلاد كثيرة بقت درجة أولوية الصرف الصحي صغيرة وكذا درجة أولوية الاتصالات والتعليم الصحي التي تؤدي إلى التغيرات السلوكية الضرورية لتحقيق الفوائد المثلى من تحسينات المياه. ووضع العقد لجميع المشتركين أن برامج المياه والصرف الصحي في حاجة إلى بنائها على أساس مشاركات تجمع جميع المعنيين (المستخدمين والمنظمات الجماعية والحكومة المركزية والإقليمية والمحلية والقطاع العام والخاص والمنظمات غير الحكومية). ودور الحكومة هو إنشاء هيكل الدعم والضبط. وتتضمن هذه على صياغة وفرض مقاييس لمياه الشرب وسوائل الصرف والمساندة الضرورية على المستويات المناسبة لتمكين الإشتراكات المحلية من توريد الخدمات المحلية التي توفي بالإحتياجات الصريحة لجميع المستخدمين وبالخصوص النساء وإستعدادهم للدفع وتسهيل التوزيع المتوازن للإشتراكات والتأثير والفوائد. ولوكالات الدعم الأهلية والخارجية دور هام في مساندة الإستراتيجيات الفعالة التكلفة التي تساعد المحروم والإستراتيجيات المرتكزة على إحتياجات المجتمع الحقيقية والتي تحمي الأنظمة البيئية المائية الهامة ومناطق تجمع المياه.

نحتاج إلى إستخدام مواردنا - الناس والمياه والمال - بطريقة أكثر فعالية.

٢.٦ وتعطينا الدروس المأخوذة من القعد الدولي لموارد المياه والإصحاح (١٩٨١ - ١٩٩٠) الثقة بأنه على أساس تعهدات ريو يمكن تحقيق التغيرات الصحيحة ويمكن تعبئة موارد كافية وإنشاء برامج عمل محدث تقدما باقيا ومناسبا وفعالا تجاه الأهداف القومية الخاصة بالمياه والصرف الصحي للجميع. وتفطية الفجوة بين الإحتياجات والأموال المتيسرة تعني التغيير. سوف تقرنا التغيرات الستة التالية كثيرا من هذه الأهداف.

- * تحويل الإستثمارات من مشاريع المياه الغالية إلى تكنولوجيات مقدر عليها وإلى طرق معالجة صحيحة بيئيا لخدمة غير المخدمين
- * وزيادة الفعالية في إستخدام الأموال المتيسرة وتعبئة أموال إضافية من المنابع الحالية والجديدة بما في ذلك الوكالات الحكومية ووكالات الدعم الخارجية والقطاع الخاص والمستهلكين،
- * وتعبئة المجتمعات المحلية للقيام بمشاريع المساعدة الذاتية
- * وتسعير المياه بطريقة واقعية لجميع المستخدمين تبعاً للقدرة على الدفع.
- * والخفض من المستويات العالية لمياه الصرف في كثير من المدن وفي الإستخدام الصناعي والزراعي، و
- * ترويج المحافظة على المياه عن طريق إعادة التطهير وإعادة الإستخدام وإعتبار مياه الصرف المعالجة موردا هاما قيما ومحاربة التلوث الصناعي.

ومن المهم أيضا أن تعطي الهيئات الدولية والحكومات أولوية أكبر للبحوث ونشاطات التنمية الموجهة نحو فتوحات جديدة في إيجاد تكنولوجيات رخيصة للمياه والصرف الصحي.

٢.٧ و يتطلب التوريد غير الفعال للمياه والصرف الصحي للأهالي والحاجة الماسة للمياه ومشاكل العدوة حول العالم رد فعل فوريا. ومع العلم بأن مشاكل الصرف الصحي ومصادر المياه تختلف في طبيعتها الحقيقية وأنها تظهر نفسها أساسا على المستوى المحلي والإقليمي فإن هذه المسائل عالمية في حقيقة الأمر. ولذلك يستلزم ذلك جهودا منسقة وجماعية لإستخدام الموارد المالية والمائية أفضل إستخدام.

٣ وعليه وبترجمة هذه الآراء إلى أفعال في حكوماتنا الخاصة ومن خلال التعاون الدولي نقوم بالتالي:

٣.١ التركيز على التعهد بتنفيذ جدول الأعمال ٢١ وعلى الدور الحيوي الذي تلعبه البرامج المنقحة للصرف الصحي ومصادر المياه في تحسين الصحة وحماية موارد المياه العذبة وتحقيق النمو الباقي؛ والحث على منح إدارة موارد المياه عامة ومياه الشرب والصرف الصحي والتعليم الموجهة إلى تحقيق تغيير السلوك خاصة، الدعم المالي الضروري بمشابتها عناصر حيوية لتحقيق المنفعة المتبادلة والمتعددة لتقليل المرض وحماية البيئة وتنشيط التنمية الإقتصادية والإنسانية؛ ومواجهة المسئلة التالية: بالرغم من أزدىاد الموارد المالية لمساندة المشاريع القابلة للتنفيذ لموارد المياه والصرف الصحي مازالت هناك عناصر تعوق إنسياب الموارد إلى البلاد النامية. وينبغي مواجهة هذه المسائل من بين غيرها في إطار المناقشات العامة حول التعاون الدولي.

٣.٢ تشجيع تنمية وتنفيذ إستراتيجيات مياه الشرب والصرف الصحي على جميع المستويات المناسبة بما فيها المستوى الدولي؛ وتطوير إستراتيجيات القطاع هذه في إطار إستراتيجيات أوسع لإدارة موارد باقية للمياه والحماية البيئية وضمان تنسيقها على المستوى القومي والمحلي مع نشاطات خاصة بالصحة والتعليم والزراعة والمحافظة على الغابات والصناعة والطاقة والتنمية المدنية والريفية والقطاعات الأخرى المعنية من أجل صيانة نوعية وكمية موارد المياه على النطاق العالمي؛

٣.٣ والتشديد على أن تغيير السلوك وتنمية القاعدة العلمية وتعليم الخبراء ومشاركة المعنيين والإلتزام الكامل لجميع الشركاء وكذلك بناء القدرات هي الأساسيات الجوهرية للنجاح المستقبل؛ ومحاولة تعجيل المساعي لتطوير، في المستوى المناسب، هياكل قومية مكملة وداعمة وضابطة لتسهيل المشاركة القصوى للوكالات المحلية وللأفراد في برامج تحسين بيئة حياتهم؛ والسعي لزيادة أولوية برامج التعزيز النظامي وتنمية الموارد البشرية التي سوف تخلق القدرات النظامية والإدارية للتوريد المحلي والصيانة لخدمات مياه الشرب والصرف الصحي؛

٣.٤ مناصرة تطبيق المبادئ الإقتصادية الصحيحة في تخصيص وتسعير موارد المياه المبنية على أساس أن المياه سلعة إقتصادية وإجتماعية والإعتراف بأنه حاجة إنسانية أساسية؛ والسعي لزيادة الإستخدام الفعال للمياه والموارد المالية المتاحة عن طريق توجيه هذه الموارد نحو مشاريع توفي بأهداف التنمية الباقية بمعنى أن تكون مناسبة تكنولوجيا وممكنة إقتصاديا وصحيحة بيئيا ومقبولة إجتماعيا؛ وتمكين موردي المياه من وضع تعريفات عادلة للمياه المستخدمة في الزراعة وفي الصناعة والخاصة للإستخدام الأهلي التي تشجع المحافظة عليها وعلى الإستخدام الفعال؛ والسعي لإيجاد طرق لمنح الجماعات المحلية أفضل المآتي للموارد المالية وتشجيعها للتعهد بالإدارة الجماعية للخدمات الريفية للمياه والصرف الصحي؛ وتشجيع وكالات الدعم الخارجية بما فيها بنوك التنمية الإقليمية والمتعددة الأطراف لتبني قواعد توجيهية للإستثمار في قطاع المياه والصرف الصحي تتوافق مع القواعد التوجيهية للفصل ١٨ من جدول الأعمال ٢١؛

٣.٥ تبني برامج لتقليل الصرف ومنع التلوث من المنبع وحماية مناطق التجميع كوسيلة لتجنب الإجراءات العلاجية المستقبلية الغالية من أجل حفظ وحماية منابع توريد المياه ونوعية المياه والأنظمة البيئية المائية والسمكية وتقليل الإسراف في المياه لحفظ الموارد المستقبلية؛ وتطبيق هياكل تسعير للخفض من الإسراف ومن تكلفة الإستعادة ومنع التلوث، مثلا بواسطة زيادة سعر تسعيرة الجملة ورسوم معالجة مياه المجاري والمياه الضائعة ومخالفات عدم التقيد. وتوريد المياه لتوفية الطلبات الجديدة بأساليب بيئية صحيحة بما فيها المحافظة على المياه وإعادة الإستخدام وإدارة الطلب، خصوصا في قطاع الري.

- ولذلك نحن، الوزراء نقوم بالتالي:
- ٤.١ التصديق على برنامج العمل المرفق للتنفيذ السريع كخطوة تالية نحو التنمية المستدامة البقاء لخدمات مياه الشرب والصرف الصحي.
- يستفيد هذا البرنامج من خبرة العقد الدولي لمياه الشرب والصرف الصحي ويطبق عمليا الفصل ١٨ من جدول الأعمال ٢١. وتبين منها أن أهم عنصر هو بناء القدرات وإننا علينا:
- أ توليد الوعي العام والسياسي عن أهمية أزمة المياه القريبة؛
- ب تعيين أهداف واقعية في طريق تحقيق الهدف الشامل لمياه آمنة وصرف صحي كاف للجميع؛ وأن تعين الحكومات تواريخ مضمرة معينة لتنفيذ برنامج العمل؛
- ج إنشاء أنظمة أكثر فعالية وجذوى لمياه الشرب والصرف الصحي في جميع بلادنا؛
- د تعبئة الموارد المتاحة في داخل كل بلد من المستخدمين والقطاع العام والخاص وعن طريق أسلوب المعالجة "الملوث يدفع" في داخل أنظمة مالية كافية بذاتها لخدمات موارد مياه الشرب والصرف الصحي؛
- ه تعزيز تعبئة المصادر المالية الدولية وانتقال التقنية لتكملة ومساندة الموارد القومية.

ويتضمن البرنامج أيضا أساليب معالجة جديدة أحدثها جدول الأعمال ٢١. وينبغي تكريس اهتمام خاص إلى:

- أ الإدارة المتكاملة للمياه مع الأخذ في الاعتبار جميع الآثار الضمنية التي تحدثها المياه على البيئة وعلى السياسة الاجتماعية والاقتصادية وعلى التخطيط المدني؛
- ب تكوين مشاركات بين جميع المهنيين والتي تعكس الاحتياجات المختلفة للرجال والنساء والشباب وتشرك جميع قطاعات المجتمع في حل المشاكل التي تؤثر عليهم؛
- ج تعديل أنماط السلوك نحو مياه نقية والصحة وتغيير دور الحكومات للإستئناس من الموارد المتاحة بأفضل طريقة لتمكين الإدارة الموحدة للمياه في أدنى مستو مناسب وللإنتقال إلى نظام إدارة مبني على الطلب؛
- د تطبيق إدارة موارد المياه عمليا كسلعة إجتماعية وإقتصادية؛
- ه البحث عن مجديدات، تكنولوجية وغير تكنولوجية، لحماية موارد مياهنا المحدودة والمتعرضة للضرر وتغطية الفجوة بين الموارد المادية والإنسانية والمالية والطلب المتصاعد للمياه والحاجة إلى الصرف الصحي الناتج من التمدين والتصنيع في العالم النامي بالخصوص.

بالإضافة إلى أننا

- ٤.٢ نذكر أن إجتماع الخبراء في المياه والصحة في المناطق المدنية الفقيرة المنعقد في صوفيا أنتيبولس، فرنسا في فبراير ٢١ - ٢٣ فبراير ١٩٩٤ قد تبني توصيات لتقدمها إلى المشتركين في لجنة التنمية الباقية في جلستها الثانية المنعقدة في مايو ١٩٩٤.
- ٤.٣ ونظرا إلى المشاكل الخاصة لدول الجزر الصغيرة، تقديم هذا البيان وبرنامج العمل للنظر فيه في مؤتمر الأمم المتحدة عن التنمية الباقية لدول الجزر الصغيرة النامية المنعقد في بربادوس من ٢٤ أبريل إلى ٦ مايو ١٩٩٤.
- ٤.٤ ومن أجل منع أزمة مياه، تزكية ضرورة تعبئة موارد مالية كافية في داخل الهيكل المقام من الفصل ٣٣ من جدول الأعمال ٢١ عن طريق إستخدام جميع المنابع والآليات المتيسرة وتكبير التيسر إلى أقصى حد وتسهيل المجرى السلس لموارد إضافية لتنفيذ برنامج العمل هذا.

٤.٥ وبالنظر إلى الحاجة لتنسيق وتركيز وتوحيد النشاطات الدولية الكثيرة المتعلقة بمياه الشرب والصرف الصحي في داخل إطار إدارة موحدة لموارد المياه فإننا نوصي
أ. إعتبار خطوات لتعزيز هذه العملية وخصوصاً من جهة لجنة التنمية الباقية؛
ب. تعزيز الهيئات والمنظمات الحالية التي تساهم في تحقيق هذا الهدف بالتوافق مع برنامج العمل.

٤.٦ تزكية النظر في تبني برنامج العمل هذا من طرف لجنة التنمية الباقية في إجتماعها الثاني في مايو ١٩٩٤.

关于执行联合国环境与发展大会

《二十一世纪议程》

饮用水和环境卫生部长会议

一九九四年三月二十二、二十三日

荷兰 诺德威克

政治宣言

THIS CHINESE TEXT HAS NOT YET BEEN FINALIZED;

IT IS STILL UNDER REVIEW BY CONFERENCE SECRETARIAT

我们 — 部长们 #，于一九九四年三月二十二日和二十三日在荷兰诺德威克出席《饮用水和环境卫生部长级会议》之际，回顾和商讨了附录二列出的会议文件中的议题。

1. 重申：

我们的目标是：协助各国政府寻求实施《二十一世纪议程》第十八章的途径。

1.1 为强调重点，特将全部《第十八章》作为水资源的一个综合管理内容。
《第十八章》指出：

- 把淡水作为一种有限的和脆弱的资源加以综合管理。在国民经济和社会政策的体制内将区域供水规划和项目统为一体；
- 把对水的管理作为整个生态系统的一部分，并把它当作自然资源、社会、经济和永恒的一种商品。水的质与量决定着它的利用价值。

1.2 就饮用水和环境卫生问题，我们再次强调《第十八章》中进一步明确的、和在一九九〇新德里召开的《九十年代全球饮用水的环境卫生协调会议》上确定的基本需要，即：在持续发展的基础上，提供充足的安全饮用水和完善的环境卫生设施，把重点集中在“每个人都享有而不是一部分人享有更多”的原则上。《第十八章》还责成各国政府遵循“新德里”确定的四项“指导原则”：

出席本次会议的国家和组织名单请参阅附录一

- 综合管理水的资源，控制固体和液体废物，从而保护自然环境和维护人类健康。
- 改革组织机构，提倡综合管理方式，包括改变程序、态度、行为，并在社会各阶层调动妇女积极介入。
- 加强地方机构的力量以促进社会团体的管理与服务，以此来进一步实施水和环境卫生的保护行动。
- 更有效地发挥现有的管理技能，更广泛地运用已具备的和更妥当的技术，从中发掘出行之有效的财政规划。

1.3 在上述原则下，作为计划实施机构，《第十八章》强调：

- 需要在各阶层强化建设能力，这包括机构的调整、相互间的合作、人力资源的开发、社会性参与，以及健康、卫生与文化教育，这是策略实施的根本条件。
- 需要对涉及到的各项大笔投资费用加以财政分析和选择。
- 需要针对不同的社会需求，选择恰当的技术条件，并对技术选择加以严格限制。

2. 我们认识到：

许多国家面临水的危机

2.1 迅猛发展的城市、自然资源的肆意开采、无节制的盲目工业化、食品业日益增长的用水量、缺乏相应环境卫生设施的人口膨胀，使得淡水质量的恶

化和淡水资源的耗竭日益严重。目前的这种用水趋势和环境污染决不能再继续下去了。远距离淡水资源开发的费用越来越高，达到威胁经济的发展的地步。同时，明显或不明显的废水溢排以及不完善的环境卫生设施使得疾病蔓延，死亡率剧增。水的缺乏和由此带来的压力，特别是争夺边境共有资源掌管权，是对和平的一种潜在的威胁。

- 2.2 造成水质的迅速恶化及淡水使用价值降低的直接原因是来自于大自然的发展和人类进程的本身。因此，为确保持续提供洁净和安全饮用水以及长久保护它们的全部流域，这就要求我们在包括农业、林业、交通、工业、城市规划、空间计划、人口控制以及发电的各个方面采取积极的整体措施。尽管城镇被普遍认为是社会进步和经济发展的中心，但数以百万计的城镇居民同样面对安全的淡水短缺和不完善的环境卫生设施的难题。在城镇贫民区加强持续性的淡水供应和完善卫生设施的需要迫在眉睫。

危机一定要消除也一定会被消除

- 2.3 许多政府在《二十一世纪议程》第十八章中曾做出保证，给那些因缺乏饮用水的安全供应和缺少完善的卫生环境设施而遭受着不堪忍受的疾病、肮脏和耻辱的国民们带来新的希望。每天全球有六千名儿童因为缺乏这些基本的生活条件而去世的悲剧，会督促我们将里约热内卢会议上做出的保证变为积极的、一致的行动

- 2.4 我们的长期目标仍将是“人人享有安全饮用水和环境卫生”。对标准饮用水和适当的卫生环境设施的需求是我们必须享有的基本权利。同时我们也有责任为子孙后代的利益有效地使用水和控制浪费。这也是为了达到我们的全民健康，减轻贫穷，保护环境，发展经济和人类进步的共同目标。饮用水和环境卫生是取得实质进展的先决条件。要完成这些事业，保护好水和环境卫生所制定的计划，要建立在适合当地环境、社会经济和文化条件需求的基础上，同时还必须符合现有自然的资源。男女之间不同的需求、不同的工种、不同的影响以及对他们自身的利益，也同时需要考虑到。

要改变现状。常规的工作方式是不够的。

2.5 尽管「国际饮用水与卫生十年」（一九八一至一九九〇）的计划在更广泛的地区在提高服务率方面取得了一定的进展，但由于人口的增长，在减少未享用服务的总人数方面，进展却很有限。其主要原因是：迅速增长的人口、缺乏政治上的支持、社会参与的不足、用于基本建设的有限的人力、物力。特别是在城市里，对现有设施的不良操作和维修，以及不重视小型的、耗费低的项目。与此相反，在很多情况下，小型项目往往比规模大的基本建设更合乎实际需要。在许多国家，环境卫生、通讯和卫生教育是改变人们行为的行之有效的办法，如能得到大力提倡，它将在对水的改善方面收益非凡。遗憾的是至今这项计划仍停留在次要位置。

这十年的经验告诉我们，水和环境卫生规划需要社会各阶层的共同努力，（包括用水者、社会团体、妇女、地方／地区和中央政府、公共和私人机构以及非政府组织）。因此各国政府的任务是：建立法规和协助机构，包括下决心严厉控制饮用水并努力减少浪费，以便地方合作者能够改善供应和质量，给那些需要水和卫生设施的地方民众提供服务，并尽力符合他们的经济状况和支付能力，同时帮助他们合理分配与利用财政援助和经济收益。国内和外界援助机构的主要任务是：支援这些国家的那些耗资低、满足社会低层大众需要的、以社会需求为基础的、保护危机水和生态系统的地区和项目。

我们需要更有效地利用—人力、水和财政资源。

2.6 从「国际饮用水与卫生十年」（一九八一至一九九〇）中所取得的经验使我们信心十足，以里约热内卢的保证为基础，正确地制定措施、合理地调动充足资源、采取正确的计划，将给全球性的水和环境卫生带来更大的改善。同时，要进一步完善那些经济上负担得起的、持久性的发展。然而，我们已取得的经验也证明，要达到这个目标，必须改变原有的做法：“常

规的工作方式”决不能再继续下去了。缩小实际需求与现有资金之间的差距意味着：变化。

- 把资金投放在与负担能力相符的项目上去，为那些未得到服务的人提供服务；
- 提高现有资金的利用率，从现有的和新发掘的资源中调动外界的资金，包括国家机构、私人部门和消费者；
- 动员地方团体进行自助；
- 按负担能力为所有的用水和卫生服务制定合理的价格；
- 减少城市和农业对水的浪费情况；
- 减少工业污染以促进资源的保护、废水的回收和水的再使用。要认识到经过处理的废水在与控制工业污染的搏斗过程中，同样也是非常宝贵的水资源。同时也要认清，要达到这些目标，我们面前的路还很长。

为完成这一任务，国际机构和各国政府要组成重点研究和发展项目，发掘新的、经济上许可的用水和环境卫生技术。

2.7 不能有效地为家庭用户提供应有的饮用水和卫生设施，以及严峻的缺水和污染问题，需要我们做出当机立断的对策。尽管供水和环境卫生的问题以它们各自不同的形式出现在不同的地方和区域，但这些已成为普遍的、全球性的问题。因此，要最有效地利用水和经济资源，则需要一个国际性的一致而又协调的行动。

3. 因此，要将这些想法在各自的国家内付诸行动，并进行国际间的合作：

3.1 重申保证执行《二十一世纪议程》，进一步改善供水和环境卫生，这将在

促进人类健康、保护淡水资源和完成持续发展过程中起关键性的作用。加强对一般水的资源管理，特别是对饮用水和环境卫生的管理，以及改变人类行为的教育方面，给予必要的经济援助。这是减少疾病，维护环境，刺激经济和人类发展、造成双方和多方互惠行动中，不可缺少的部分。就此问题，虽然国际用于援助用水和环境卫生的资金已明显增加，但仍有不少阻碍资金流入开发中国家的因素。所有这些问题应在讨论国际合作事务中与其他事项一起统一协商解决。

3.2 在适当层次，包括国际间，鼓励发展和保护饮用水和环境卫生的策略。同时，在持续水的资源管理和环境保护的策略范围内，协调国家和地方在健康、教育、农业、林业、工业、能源、城市和农村发展及其它有关区域的活动，以便保护世界水资源的质与量。

3.3 强调改变行为，发展大众基础知识和专业教育，建立各阶层人们的合作关系和取得所有合作者的承诺并确定他们的明确地位，这些都是未来成功的重要基础。寻求在适当阶层，加快建立组织结构，使它们成为有能力，可以支持和可加以管制的组织结构，以促进地方机构和人在最大程度上参与改善他们生活环境的计划。为了巩固机构和发展人类资源的计划，应寻找最应优先考虑的重点。创造组织和管理的能力，以便为地方上提供持续用水和环境卫生的服务。寻求确保这些计划满足社会各阶层人们的需求，有助于在贡献、影响和利益之间取得平衡的分配，使他们有平等的机会参与计划、决策、执行和管理。

3.4 提倡在水资源的分配和价格制定中应用健全的经济法则，这些法则是根据水是人类的基本需要，同时也是经济和社会商品的原则来制定的。为了更有效地利用现有的水和财政资源，应引导投资方向，使财政资源可以真正用于技术上适合的、经济上可行的、环境上满意的、社会上可以接受的那些持久发展的项目上。督促供水者设定公平的农业、工业和家庭用水的水费，以鼓励保护和有效地使用水。寻求途径，使地方社会团体容易取得财政资源，并鼓励它们管理当地农村用水和环境卫生的服务事业。鼓励私人参与资金、建设、经营和维护水及环境卫生的事业。鼓励外界援助机构，

包括跨国和区域发展银行，采用水和环境卫生区域的投资准则，对水和环境卫生事业进行投资。这个准则应与《二十一世纪议程》第十八章的准则一致。

- 3.5 采用应有的方式防止环境和水的污染以及水源的浪费。作为一种避免将来耗资巨大的补救工作的措施 — 加强保护供水水源、水质、水的生态系统和渔业，减少水的浪费以保护未来的水资源。履行公平的收费结构来减少浪费、增加成本回收以及防止污染，例如：梯级递进式用水收费、排污和废水处理收费、违规罚款。以有利于环境的方式向新的需求者供水，这包括水的保护与节约及再使用、需求量控制，尤其是在灌溉方面。

4 因此，我们 — 部长们和欧洲联盟专员：

- 4.1 赞同立即实施本次会议的《行动纲领》，并将此作为更进一步持久发展饮用水和环境卫生的计划

这个计划是从《国际饮用水与卫生十年》的实践中总结出来并补充到《二十一世纪议程》第十八章的实行动中的。实践经验告诉我们，强化建设能力是关键的一步，因此我们必须：

- a. 提高社会上和政治上的觉悟，使人们认识到水危机的严峻性；
- b. 作为全国持续发展策略的一部分，制订出为所有的人提供安全用水和适当的环境卫生的计划；为配合政府制定的实施计划，定出相应的落实日期；
- c. 在各国建立更为行之有效的提供饮用水和环境卫生的整体系统；
- d. 在各个国家，采用“污染者付费”的手段，以便从用水者、私人和集体各个方面进一步挖掘现有资源潜力；
- e. 充分调动国际财政资源和技术，作为国内资源的辅助和支援。

这个计划同时还与《二十一世纪议程》中引述的新手段相结合，尤其是要重视；

- a. 综合管理水，统一“水”作为环境、社会、经济政策以及空间计划的观念；
- b. 在所有用水者中推广彼此间的合作关系，并充分体现男人、妇女和儿童的不同需要，促使社会各阶层的人士参与并解决和他们相关的问题。
- c. 改变人们对淡水和卫生的行为方式，调整政府应负的责任，以便最有效地利用现有资源，极力将水的整体管理权下放到尽可能低的地方基层管理机构，并转移到“按需管理”的方式上；
- d. 把对水资源的管理作为一种社会和经济的产物；
- e. 进一步开展技术和非技术性的革新创造，以便保护我们有限的、脆弱的水资源。逐步缩小物质、人类和财政资源的差距，降低对水和环境卫生迅速增长的过量需求，特别是在那些飞速城市化和工业化的发展中国家。

4.2 [一九九四年二月二十一至二十三日在法国索非亚·安提坡利斯 Sophia-Antipolis召开的有关贫困城市地区水与健康的专家会议同意，将那次会议的建议由出席将在一九九四年五月召开的第二次“持续发展委员会”会议的代表提交会议讨论。]

4.3 鉴于微小岛国的特殊困难，本次会议的《政治声明》和《行动纲领》将传达给即将在一九九四年四月二十四日于巴巴多斯召开的“联合国发展中岛国持续发展会议”以供参考。

- 4.4 我们建议，为了防止水危机，急需在根据《二十一世纪议程》第三十三章建立的结构内，进一步调动足够的财政资源，充分利用现有资源和机制，最大限度地增加额外资源的利有率和稳定流通，最终完成实施本次会议通过的《行动纲领》。
- 4.5 为了综合管理水资源，需要和国际上各种于饮用水和环境卫生有关的活动紧密联系在一起，互相联合、互相协作、取长补短，一句话——互通有无：
- a. 在实施过程中，考虑采用不同的步骤，尤其要参考“持续发展委员会”提出的建议；
 - b. 依照本次会议通过的《行动纲领》的原则，强化现有组织和机构完成综合管理水资源的重任。
- 4.6 建议在一九九四年五月“持续发展委员会”召开第二次会议时鉴借本次会议通过的《行动纲领》。

《行动纲领》

ACTION PROGRAMME

1. 水和人类 行为改变和合作关系

正如《二十一世纪议程》中指出的，所有合作者之间的密切合作对稳固地持续发展是极为必要的。同时也要认识到，合作的开端要建立在使用者的真正需要的基础上。所有与饮用水和环境卫生领域有关的参与者，都需要改进他们之间的合作关系，因为这样才可以提高效益、解决矛盾从而完善综合管理。

有关供水和环境卫生的决定必须以城市和农村社区人们的态度和需要为根据，包括管理什么、怎样维护和收费情况。在政治和政府的层次，以及供水和环境卫生领域中，人们必须按照要求改变行为，这样才能支持这种合作关系。

因此在适当的层次，政府必须：

1. 为了提高公众对饮用水和环境卫生的意识和展开社会性的动员，可采取：
 - (a) 促使政府、地方当局、公共事业部门、消费者，特别是妇女、儿童，以及社会各阶层的人，使他们明确了解水的问题以及水资源和生态环境极易受损的脆弱性；
 - (b) 在社会各阶层提高人们的认识，使大家了解水资源正在日益枯竭，因此合理地节约用水十分重要。为了防止水资源的污染，必须建立污水处理系统。同时也要强调，适当的卫生习惯是预防细菌污染的必要条件；
 - (c) 大力宣传应有的使用水和环境卫生的基本知识，对卫生议题给予足够的重视；
 - (d) 使人们认识到：水是社会和经济的商品，它具有一定的经济价值，它必须配之以适当的价格政策，包括采用经济手段；
 - (e) 制订并执行信息传播和教育的方针、计划，旨在改变人们在计

划、设计/建设、执行和维护过程中的行为方式；

- (f) 根据规定的标准，为各阶层有关当局负责饮用水、水的卫生和废水处理的管理人员提供培训方案。培训方案应反映新的观念和原则。

2. 为了改善合作关系和各方面的积极参与，下列行动应给予优先考虑：

- (a) 鼓励供水和环境卫生系统的政策制订者，及水资源的所有者、供水和环境卫生的承包者和操作者督促地方社区、用水组织、妇女和非政府组织一同参与这些系统的计划和决策。这样才能利用当地的知识，特别的技术和不同的观点；
- (b) 为支持参与和合作关系制定法律和组织结构；
- (c) 制订计划并通过适当的地方性培训和教育，增强所有用水者的建设能力，包括各个社区的力量，特别是妇女的力量；同时也要加强用水者在水公司理事会的代表性；加速成立消费者协会并健全消费者协会与所有用水者之间的沟通渠道；
- (d) 提供取得项目、计划和政策的信息便利；明确公民和集体的权利和义务，并提供负责的、具有透明度的决策程序及水的质量标准，使个人和集体具有上诉权和获得独立评审的机会。

在地区和国际间，各国政府应该：

1. 制订信息和经验交流的规划，特别是在培训、教育、研究、技术和规划设计以及实施方面；
2. 外界援助机构应该支持公共教育和建设能力的计划，应在他们的机构中推行透明化和向使用者负责的决策机制，积极倡导公众参与各个层次的计划、设计、执行和管理；

3. 在全国和国际范围内制订出计划，提出在水和环境卫生领域中应优先考虑的项目；在区域中的政治、公共、技术和财政方面制订协调的行动纲领；
4. 地区之间的合作应该加强，特别是那些有类似问题的邻国之间的合作，例如：跨国水资源的问题或与此相似的情形，比如微小岛国中的问题；
5. 在国家和国际间，制订一致的计划以支持微小岛国的持久水资源的开发和环境卫生。

2. 水、健康和环境 综合的水政策

饮用水和环境卫生计划的制订和实施，必须在一个综合的水资源开发框架中进行。采用生态体系的观点，进行水的资源开发和管理，包括《二十一世纪议程》指出的健康方面。

因此在适当层次，政府应该：

1. 进行水资源的评价，从供水和环境卫生服务的角度把目前的情况开列出一个清单，确定问题和限制。
2. 应制订评价和修改水的资源管理和环境保护的措施，其中饮用水和环境卫生的开发应在全国持久开发策略的框架中进行，并与《二十一世纪议程》一致。这些措施应该包括：
 - (a) 享用适当的水和环境卫生的服务是人类的基本需要；
 - (b) 水资源的质与量应受到维护和保护，要考虑到生态系统对水的质与量的要求；
 - (c) 有效地用水，考虑再使用和再循环利用废水。在处置废水时，应以下一代的利益为前提来保护环境；
 - (d) 在竞争用水的情形下，合理分配水，包括饮用水、工业、农业和水利用水；
 - (e) 使全国水的消费量和现有的资源一致；
 - (f) 以正确的政策和执行政策的方法达成最好的水的使用以及淡水资源的持续管理；

(g) 在供水和卫生计划中，注意到与健康有关的目标。

3. 到一九九七年应制订、重估、修订和执行饮用水和环境保护的策略。这些全国持续发展策略应与《二十一世纪议程》一致，应考虑到“世界儿童高峰会议”所设定的目标，以及合理有效地提供、使用饮用水和环境卫生。这些策略应包括：

(a) 为穷人和未受到服务的人服务的策略；

(b) 投资策略，包括：为穷人服务应根据他们在农村和城市周围的特殊需要而定；

(c) 在充分认识合理需求的基础上，制订计划策略，把供水和下水道的计划和项目统一起来；

(d) 为了使卫生教育更有效应，应制订一个策略；

(e) 设定合乎实际情况的质量标准和准则，以评价饮用水、下水道的废水和循环水；

(f) 为了保护 and 增强人类健康，应优先考虑最容易患病的人口。

4. 吸引所有用水者参加制订并执行全国策略，例如：消费者、非官方组织、科学家、妇女团体、地方企业家、专业者和专业协会。

5. 在不曾有全国饮用水和环境卫生监督系统的国家，成立一个这样的系统，为了监督这个《行动纲领》的实施成果和其他主要目标的完成。应该充分利用现有的监督和信息支持系统，它们是由“世界卫生组织”(WHO)、“联合国儿童基金会”(UNICEF)以及由和供水和卫生监督计划发展出来的。

6. 为了倡导有效地使用水，根据下列准则建立价格政策：

- (a) 价格应是社会各阶层的人都负担得起的，并且应考虑对健康的影响；
 - (b) 通过需求管理以维护资源；
 - (c) 实行污染者付费的原则。
7. 应减少进入配水管理网系统而损失的水量，以及降低不能达到最终用途的水的比率，包括评价管理水的机构经管、组织和操作方面，这样才能确定造成目前无法计算的漏水的真正因素。
8. 为了减少工业、农业和家庭的用水，应倡导设计和使用节水 and 再用水的技术。
9. 如果“天然蓄水盆地”的处理方式可行，应通过下列方法保存地上水和地下水的天然质量。它们包括：
- (a) 维持有效的水流域管理，成立水的保护和卫生区，并且设定规则，使用天然资源和实行环境保护，以尽量减少从工业、农业和家用方面来的污染物质的影响；
 - (b) 防止因持续的农业活动和使用土地造成肥料污染地下水和其他的水域；
 - (c) 按法规的规定适当地使用农药，不断找寻危害轻微的农药，驱除对地上水和地下水有害的农药；倡导和使用能使农业持久的技术；
 - (d) 在有利于环境的系统中，建立废水处理的装置和使用循环水，在实施这些措施时，应同时附上环境影响的评价报告。
10. 倡导适当地开发和利用非常态的水源，例如：再使用安全的废水、使用存

贮的雨水、使用脱盐的海水和矿化地下水，以及保护传统的水源。

11. 收集和分析健康资料，以决定在水和卫生方面的优先顺序和目标。
12. 应倡导每个国家采用个别的饮用水质量标准或指导方针；应把“世界卫生组织”的指导原则列入考虑。

在区域和国际层次，政府应该：

1. 河的流域管理、跨越国界水资源的开发，以及控制污染，三者之间应加强合作。
2. 特别以区域为基础，在减少损失策略、节水和再使用水的技术方面，倡导技术的转移。
3. 供水国应与用水国达成协定，设立水的标志，并使它们与其功能和用途相符。

3 水和机构 组织服务的规定

正如《二十一世纪议程》指出,建设能力是一个基本的活动。它建立有能力的机构,提供足够合格的工作人员,帮助各阶层用水者建立能力,使各个社区成为开发该区域的全力合作者。

因此,在适当层次,政府应该:

1. 通过下列方式,改变政府的职能,从水和环境卫生服务的直接供应者成为各阶层用水者的促成者和管理者:
 - (a) 负起组织监督系统和全国信息系统以及全国饮用水评价的责任;
 - (b) 加强政府作为管理者的角色,确保有效地执行有关水的法律和法规;
 - (c) 负起责任监督所有提供服务者和其他用水者的行为;
 - (d) 如果能通过适当的法规来保护使用者,并保证不影响质量、效率、合理的价格和社会对供水和环境卫生的关注,应考虑私人部门介入供水和卫生机构的可能(特别有执行的部分)。
2. 为了加强区域彼此间的合作、建立统一的政策、改善计划,以及促使分享与区域相关的信息,在适当层次,应建立起合作的机制。
3. 在建设能力的计划上增加投资,包括,机构和人力资源的开发,特别要注意妇女。这些都是为了在每一个层次建立起组织和管理的必要措施。
4. 为了使机构更以使用者为中心,应对机构提出必要的支持和鼓励。以使用者为中心是指:所有权,计划和实行的决策权与责任都应该降到尽可能低的层次,更接近使用者。

5. 建立可以独立工作的供水和环境卫生机构,特别是在财政、全面管理和研究方面。确保服务能持久而有效,并且可以逐渐收回成本。
6. 改善这些机构的全面财政,使这些机构对社会负责,对社会更公开,包括,民众应容易取得信息和质量的资料,并且对机构的决定有上诉的权利。
7. 为了保证可以提供所需要的技术人员,以从事计划、管理和执行供水和环境卫生系统,应该进一步鼓励如下:
 - (a) 改善专业和技术的教育与培训;
 - (b) 建立职业发展和适当的工资水平以留住技术和专业人员;
 - (c) 确保出版技术材料以供专业者的需要,保证有效率地管理水和卫生的机构,非官方组织应参加管理;
 - (d) 依据适当的性别分析,加强妇女在计划、管理和执行中的角色。在微观和宏观层次,促使妇女积极地参与有关水和环境卫生议题的决策。
8. 成立全国多种学科专业协会以协助建立专业联络网,特别是参与制订国家标准,在全国基础上组织专业技术的传播,以及参加国际专业协会并从中获得专业上的协助。
9. 到1998年设定主要的指标而不是笼统的范围,例如设定的指标应与健康、环境的影响和使用者行为有关。
10. 为了收集和传播信息、应用研究的成果并以技术支持监督工作,应成立或加强“全国资源中心”。
11. 增强适当的卫生机构,使它们与水 and 卫生当局协调一致,推行卫生教育和支

持社区参与。

在区域和国际层次：

1. **在区域专业者,专业协会,非官方组织之间倡导信息交换和建立联络网,包括各界的横向交流。**
2. **与周边国家在管理跨越国界的水资源上,应倡导大力合作。**
3. **区域之间应交换改革机构的经验。**
4. **为了改善饮用水和环境卫生的计划、管理和执行,应加强非官方组织的力量和它们在区域中的活动,以及它们在区域中的彼此合作的关系。**

4 水和调动财政资源 建立未来的资产

为了促使饮用水和环境卫生的机构能在一个良好的经济基础上工作,如《二十一世纪议程》指出,最有效和有力地使用现有的资金就成为十分急迫的目标,特别应该考虑到全球对饮用水和环境卫生的需求正在逐步增加,而提供给区域现有的外界资金却正在逐渐减少中。

因此,在适当的层次,政府应该:

1. 通过下列方式使供水和环境卫生系统能得到公正和有效的财政管理:
 - (a) 逐渐地把决策和管理的权力下放到最低的适当层次,那里有足够合格的工作人员;
 - (b) “以盈补亏”的收费系统应该尽快组织起来,或把价格设定在某一水平,这样供水和环境卫生的组织才能在财政上自主自立,不妨碍为最需要的人提供基本的服务;
 - (c) 从穷人可能受到的潜在的影响来看,应使他们在改变中能够得到利益。

2. 为了使资源的产生和使用得到合理的安排,应制订在饮用水和环境卫生领域投资的详细指导原则:
 - (a) 继续为社会中所有区域中的家庭用户提供水和环境卫生的服务;
 - (b) 尽可能地减少补助,但应考虑到最迫切需要的用水用户的特殊要求,应确保他们使用的水是安全的;
 - (c) 鼓励有利于良性循环的投资,因此,可以节省经费,改善用户在这方面的地位,保护环境;

- (d) 以节省成本,负担得起和适当技术为优先投资的目标;
 - (e) 逐步淘汰不适当的技术;
 - (f) 修复和维修现存的供水和环境卫生系统;
 - (g) 优先考虑足量而有效地投资在供水和环境卫生上,特别在城市和周边地区,包括以硬体设备和教育来倡导个人和家用卫生,以及怎样最好地利用供水和环境卫生。
3. 探索和开发有创造性的经济机制,包括私人资金,以及尽可能地使用地方资源。
 4. 形成综合的看法,包括通过给予贷款、进行土地分配和保证土地的永久使用权,可以改善市郊和农村穷人的收入,这样就可以降低补助的需要。
 5. 进行对使用者交费以收回成本在实际上实行的研究。探讨在不同的社会经济环境中,在不同的服务需求下,在不同的收费机制下,出现的实际情况。研究的前提应是把成本回收统一到供水和环境卫生计划中,特别是用户应负担环境卫生的费用(或把它加在饮用水的价格上,或以其他方式来处理)。
 6. 通过经济鼓励并把环境的耗损加在饮用水收费和其他用水收费上,来倡导有效地使用水和再使用水。
 7. 研究其可能性:把处理过的废水再供给农业使用,或作为补充水源来使用。
 8. 在不同区域提供的服务暂时会有些差异,这是可以接受的。尽可能早日完成总体服务,然后再在资源允许范围内统一差异。
 9. 强调要把运行和维护的考虑重点与方案设计结合起来。

在国际层次,下列的建议是急迫的:

1. 包括世界银行和区域银行等的外界援助机构,应该优先援助那些在饮用水和环境卫生方面能更全面解决问题的计划。也应该优先援助那些从经济和技术方面考虑,至少维持现有范围的计划。
2. 应考虑以各种方式有条件地与债主国安排削减债务,这是区域开发资金的一个机制。
3. 采取由“联合国环境计划署”/“联合国儿童基金会”倡导的 20 / 20 机制; 即,百分之二十的经费来自国外发展援助,百分之二十的国家预算资金应用于社会发展,包括饮用水和环境卫生。

为了协助各国推展活动，国际社会急需：

1. 国家之间的合作是成功地发展区域策略以及动员社会的关键一举。
2. 为体现所有用水者的意愿并充分考虑到生态系统和社会经济的结构，应把援助给予已经完善或正在完善有关水资源管理的全国策略的国家。
3. 注意到那些需要援助的地区，人们认识到非洲应给予特别的重视。
4. 发展中国家实施建设能力的计划，国际组织和双边合作扮演了具有重要性和关键性的角色。在这方面，应按照“联合国发展计划署”执行董事会的要求，考虑《能力二十一计划》中有关水和卫生的部分。
5. 要求“持续发展委员会”考虑如何利用现有机构为信息和数据交换建立一个区域性的联络中心，并考虑如何在饮用水和环境卫生方面，加强发展合作和其他资金援助的角色。
6. 更新合作体制以调动日益增长的区域(多国家)方面的积极性，例如：“南亚区域合作联盟”(SAARC)、“非洲统一组织”(OAU)、“东南亚国家联盟”(ASEAN)以及“拉丁美洲和加勒比海地区经济委员会”(ECLAC)，同时为达到共同目标提倡多方合作。
7. 提倡和促进“联合国区域委员会”在水和环境卫生方面的作用，不事先给予由联合国秘书长负责领导的权力下放的结果任何评断。
8. 提倡和支持全国性的行动：
 - 以改变行为模式为目标；
 - 与社区、政府和社会各阶层的角色有关。

此外,还进一步建议:

9. 未来的国际会议,例如:“社会发展全球首脑会议”、“人口和发展会议”、“第四届世界妇女大会”、“联合国人类居住区环境第二次会议”和其他会议,应讨论相关的水资源开发和管理的议题,特别是那些与供水和环境卫生有关以及与水质和健康方面有关的议题。
10. “持续发展委员会”将在1997年对《二十一世纪议程》提出的对饮用水和环境卫生方面的实施结果做出评价。
11. 联合国继续承担对全球水资源的科学性估价,包括预测对水量的需求和可获得量。
12. 认识到作为全球论坛的“供水和卫生合作理事会”的重要成就。认识到它与其他国家、外来援助机构、非官方组织、专业协会和信息、研究和院校之间的合作关系。给予增强“理事会”的主导角色应有的协助。
13. 为了防止水危机,急需在根据《二十一世纪议程》第三十三章建立的框架内,进一步调动足够的财政资源,充分利用现有的资源和机制,最大限度地增加额外资源的所有量和稳定流通,最终完成实施本次会议通过的《行动纲领》。
14. 为了协助执行大会通过的《行动纲领》,在联合国“持续发展委员会”第二次会议上,应考虑加强现有的协调机制,以协调与水资源相关的联合国系统间的活动。联合国秘书长负责在各个机构间进行协调,“持续发展委员会”将在1995年召开的“经济及社会理事会”的协调小组会议上建议考虑这个议题。
15. 国际专业协会,例如“国际供水理事会”和“国际水质协会”,应促成各国专业协会的成立和发展。

邀请国际援助机构:

16. 评价它们的计划有效助长的程度：
 - (a) 综合的水资源管理，
 - (b) 强化国家机构。

17. 制订实施计划和贷款机制，必须考虑到供水和环境危机的危机。

18. 鼓励“供水和卫生合作理事会”在对此有兴趣的公众组织和有关的非官方组织的协助下，从事必要的研究以增强其活动。在适当情况下，采取必要的步骤，以扩张其活动或者成为更全面性的世界水论坛或“理事会”，应涉及水区域的各个不同方面。鼓励“理事会”在1995年4月向成员提交这议题进展成果的报告。

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Closing Speech at Ministerial Conference on
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March 22nd-23rd 1994 in Noordwijk
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Chairman, Ladies and Gentlemen,

It is really a hard burden for me, to be the last person blocking you from going home! But nevertheless, Chairman, thank you very much for the opportunity. I will be as brief as possible. Of course, since 1989 and the 44th General Assembly to convene the UN Conference on Environment and Development, sustainable development has become a key issue within the United Nations. The Rio declaration, Agenda 21 and the proposed principles, together with the Convention signed in Rio on climate change and biodiversity, all combine to form a programme of a new global partnership for environment and development.

There is a growing framework of legally binding conventions, and that is a very good development. We have the Vienna Convention and the Montreal Protocol concerning the ozone layer, and we have the Convention on Climate Change. We have the convention on biodiversity and we are in the final negotiations concerning the convention on desertification. I hope that the Commission on Sustainable Development will also decide to have an intergovernmental task force concerning the ongoing negotiations regarding all kinds of forests, to pave the way for an international mining convention on forests. As the German Environment Minister I would like to invite you all to come to Berlin at the end of March next year, to the first conference of the parties involved in the Climate Convention.

We all know that in these difficult times, there is an absolute necessity to have a monitoring instrument for Agenda 21 in the framework of the United Nations, and therefore it must be our common aim to establish the Commission on Sustainable Development as a political instrument of the international community, as a monitoring instrument of Agenda 21, and as an instrument of ecological peacekeeping and of development partnership. Therefore I am looking forward to the Agenda for Development previously announced by the Secretary General. We were very lucky to have his Agenda for Peace, and so it would be a very good idea to discuss an Agenda for Development in the coming period, also in the framework of the CSD. We have to prove again and again that Agenda 21 is being implemented. All those who were in Rio nearly two and a half years ago know that we must have a monitoring instrument to indicate what is going on in practical terms. That is why I offered those 3 C's - to concentrate, to coordinate, and to come to concrete actions in the framework of the CSD.

We decided, in the first meeting of the CSD, that we would concentrate on sectoral issues and cross-sectoral issues. With regard to the sectoral issues, they were freshwater, waste, chemicals, health, and human settlements. During the first meeting in New York we were absolutely convinced of the necessity to use the time before coming together again, to prepare properly for the next meeting of the CSD. Coming together only for a fortnight to discuss those sectoral issues, and to combine them with the cross-sectoral issues of finance, technology transfer, capacity building, changing consumption patterns, and the integration of the most important groups, could not be successful. We therefore, at that time, asked the members to attend conferences concentrating on those sectoral issues, so I am also very glad that we have been invited by the Swedish Government to come to Stockholm to discuss chemicals, to be able to prepare for the CSD meeting. The meeting already held in Cartagena, Colombia, organized by the United States, and the meeting in Oslo on environmentally friendly technologies and products organized by the Danish Government were both absolutely necessary if we want to make the CSD a success. This meeting here was of utmost importance for the preparation of the next meeting of the CSD, and for the ongoing process. We need such conferences urgently. Therefore, I have to thank Hans Alders very much not only for offering this opportunity, but also for organizing such a brilliant conference. Congratulations to him and all the people working with him.

Of course, ladies and gentlemen, we not only have to look in regard to the CSD, we also have to do our homework. Listening here in the plenary and elsewhere, and to all the discussions with our colleagues, it is clear that we as developed countries have to do our utmost to change our consumption patterns.

We have, of course, until now nothing resembling a sustainable economy in our countries. We do not have a sustainable Germany, and I really believe we do not have a sustainable Europe. We have to do our best to change this, not only with regard to our own interests, but with regard to the global problems. To give you one example, in our country, the per capita consumption per day of drinking water is nearly 150 litres per capita per day. Such behaviour must first be changed at home, in order to develop better technologies to save water. We are looking for a transfer of technology, but how can you transfer technologies if you have not developed the environmentally friendly technologies at home? We have to integrate external economies into our prices, to turn the bottlenecks of water into something which stimulates the development of better technologies at home. This will result in a better transfer possibility. I have really learned in all the days and hours here, that we have to concentrate our utmost on capacity building. I really believe that it must be one of the main signals coming from this conference.

Of course, there is no doubt about the need for finance, but I really believe we have to combine this as directly as possible with capacity building. All the ideas developed by the ad-hoc preparatory committee for technology transfer in New York some weeks ago, in preparation of the CSD meeting, are of high value to all of us. For example, build and operate procedures; the possibility of being integrated in the development of legislation, administrative structure, and pricing, as the minister from Ghana mentioned some minutes before. I think it is one of the most important signals coming from this water conference, and going to the CSD. And, Chairman, I really do believe we also have to do our utmost to integrate the private sector in this field. I am looking for a better possibility in the CSD to integrate those which are of high importance for the private sector, and to come to a better transfer of hard and soft technology with regard to capacity building and technology transfer.

Of course, we need economic development. It was not mentioned here, but I have to underline that the best precondition for all we discussed is to stimulate the international cooperation with regard to trade. It was good to have the finalization of the GATT and Uruguay round last September. We have to use this momentum, also with regard to the ongoing discussion concerning trade and environment, so that we do not discuss the poisonous topic that one is a little afraid of new, non-tariff trade barriers, and the others are arguing concerning environmental dumping development. We have to stick directly to this problem, also in the framework of the CSD, and, last but not least, I think it was a good precondition for this conference, too, that we were able to succeed last week in finalizing the replenishment and the restructuring of the Global Environment Facility (GEF). It was a hard job to do, but nevertheless, it is a good decision to achieve better integration of all countries in decision-making - it is good that we do not have the same decision-making situation as we have in the World Bank. Now there is also a better possibility for the developing countries to be involved, so that we can make full use of your information. It was a very good intervention from the World Bank, to underline that we need direct information from the grass roots people to make the best use of their knowledge. The change in the decision making procedure of the GEF, as well as to the replenishment of this financial institution are of utmost importance in this respect. With regard to water, the door is already open to use the money for transboundary water bodies, of which there are many all over the world. We should pick up the signal from this conference and use this open door also for water problems of a global content. Altogether I really believe that it was imperative to come to Noordwijk, that it was a must to organize this conference, to ensure a better start for the next decade of the CSD.

We have to do a lot more work. It is necessary not only to produce paper, but to produce more information for decision making. We need something like an accepted set of green indicators, so that we can look for the ongoing process of overcoming the problems to the environment by development, and vice versa. We have to look for green accounting, we have to look for the best use of the available information for decision making. We have too much paper and too much information for decision making, and therefore we have to look at the quantity as well.

And, last but not least, I really believe that worldwide, we have an inflationary process of conferences. All of the possibilities for new conferences are incredible. Saying this, I believe coming to Noordwijk was not paying tribute to this inflationary process. It was a must in a country confronted directly by water. Looking to the North Sea next to our hotel, we are reminded that there were little boxes of pesticides floating in this water not long ago. Pesticides going to a third world country, and handled in a container which fell off a ship. This created problems here, and being aware of the fact that these pesticides were going to a developing country, we have a direct link between water and pesticides, as was very often mentioned here. A country like the Netherlands, being largely below sea level, reminds us of the interrelationship between climate change and the rise of the sea level, and reminds us of the necessity to overcome those problems as well. A country like the Netherlands, directly linked to water of all kinds, was the best host for this conference, and I must underline, Hans Alders was the best host. I thank him personally for the excellent work done here, and I hope that this will bring good momentum and a good backing for the CSD conference, and for whoever will be in the chair at the end of May. Thank you very much, and I hope we can make the best use of our results.

Thank you.

Closing Speech at Ministerial Conference on
Drinking Water and Environmental Sanitation

March 22nd-23rd 1994 in Noordwijk
The Netherlands

Minister J.G.M. Alders
The Netherlands

Dear colleagues, distinguished delegates,

We are now reaching the end of this conference, and I think we can conclude the conference with a very satisfied feeling. We have done a lot of hard work, well-prepared by the senior officials. We managed to delete all the remaining brackets without also deleting the contents of the final documents, and we leave a very clear Political Statement and a very specific Action Programme to be presented to the bureau of the Commission on Sustainable Development. Of course, it is up to the CSD to take the appropriate decision, but after these two days I am sure the signal is clear: we want action on drinking water and sanitation. The results of the conference to be found in the two documents already mentioned, and with their contents we can safely answer difficult questions at home about what this conference has meant to sustainable development, and in particular, to the people in regions where the availability and supply of safe drinking water is not as usual as it is here in the Netherlands.

What are the concrete results of this conference? Let me try to summarize some of the highlights in view of the little inquiry we held today. With your help, we got a very clear picture of your impressions on the output of the conference, and maybe on the issue as a whole. We received 58 responses: 40 from government delegations, 11 from the NGOs, and 7 from international organizations. And it was striking that there was almost no difference in emphasis given by governments, NGOs and the international organizations. Does this imply that we have full integration of thinking? If so, I feel this is the major achievement of the conference and its preparations, where all the actors were involved on equal footing. I would like to congratulate all of us on that. Of course, I cannot list all the interesting answers you gave, but we tried to cluster them, so that I can present you with the highlights.

The need for prompt action was stressed again and again. We are facing a severe water crisis in quantitative and in qualitative terms. This conference made it clear that the issue deserves a high ranking on the national and international political agenda. The approach to be taken should be holistic and integrated, and included in strategies that contribute to sustainable development. Within this integrated approach, special emphasis is needed for the urban areas, and for the interrelationship with health and nutrition. We must ensure that the unserved will be served. The need for better knowledge of the water resources, and of the threats caused by industrial and bacteriological pollution and by pesticides contamination, was stressed several times. This is considered to be the basis for integrated resource management.

It was felt that this meeting came up with a new agenda. Partnership is needed for its implementation. Participation is, by far, at the top of the bill, if we would rank your replies. Participation implies raising of awareness at all levels, to ensure the involvement at the lowest possible level and to promote changes of behaviour. And this has consequences, according to your replies, for the role of government. Enabling governments and decentralization are the catchwords here. It was also interesting to note that you indicated that we should pay more attention to transboundary issues of conflict prevention. It was confirmed in our discussions on the adoption of the Political Statement. Essential for the implementation of the new agenda is the adequate level of human resources. The commitments in the Political Statement and in the Action Programme frequently got fully supportive replies, which is very encouraging. Of course the need for adequate financing was stressed again and again in the replies. Water is an economic good that must be priced at the appropriate level. Domestic resources must be mobilized using innovative approaches, and there is a need for increased financial flows and increased private investment. The means for the implementation should be further specified in the results of this conference.

Suggestions for various institutional provisions are made, but they should not detract from action that can be based on what we achieved here, and that was also stated very clearly. Let me quote a reply by the delegation from Uzbekistan. "We reported the Action Programme, and we will try to do our best to fulfil these items in our region, and to take part in international cooperation." If we would all take this message home from Noordwijk, I would feel very confident for the future.

Ladies and gentlemen, distinguished delegates, I would like to give special thanks to the following functionaries: the two co-chairmen; the chairmen of the five conference sessions; the moderators of the same five sessions; and all the senior officials, who worked so hard during the senior officials meeting and in support of their ministers at the Ministerial Conference itself. And we must also not forget the interpreters, translators, and all the secretariat staff, who have so obligingly contributed to the success of our conference.

Let me now conclude with one last remark. The children let us know that we could count on them. Let us give them a clear message in relation to their future: they can count on us.

Distinguished delegates, ladies and gentlemen, I thank you all for your cooperation during this conference and I declare this conference closed. Thank you very much.

1. Translator's note: does the speaker mean "desalination" or "purification"?

Summary of the Conference Result Survey

The question put to all delegates was as follows:

"In your delegation's opinion, which are the three most important issues/ new elements of the Political Statement and Action Programme?"

A response to this question was received from 58 delegations (of which 40 were governments, 11 were NGOs, and 7 were international organizations). What is most striking, in the replies, is that there are almost no differences in emphasis between the responses of the various groups. This reflects well upon the Conference (and its preparations), at which (and during which) all the participants were represented on an equal footing.

The replies to the questionnaire can be summarized thus:-

- Over and over again, the need for prompt action was stressed. We face a severe water crisis, both in quantitative and qualitative terms. The issue deserves a high priority on national and international political agendas.
- The approach to be taken should be holistic, integrated and include strategies that contribute to sustainable development. Within this overall approach, special emphasis should be placed upon the needs of urban areas and the interrelationship between health and nutrition. We must ensure that the presently unserved will be served in the future.
- The need for a better knowledge of water resource and threats, particularly those caused by industrial and bacteriological pollution and by pesticide contamination, was mentioned several times. This was considered to be the 'raison d'etre' of integrated resource management.
- It was felt that the Conference had come up with a new agenda. Partnerships are needed for its implementation, which need adequate, and in some instances, more human and financial resources, particularly from the private sector. Such commitments received frequent and full support from delegations.
- Water must be regarded as an economic good and priced at an appropriate level. Domestic resources of finance need to be mobilized, using innovative methods.
- Participation implies the raising of awareness, at all levels, to ensure the involve

ment of people at the lowest level in order to bring about changes of behaviour. This has consequences for the role of governments - enabling and decentralizing.

- More attention should be paid to transboundary issues and water management's role in conflict prevention.

- The importance of a proper follow-up to this conference, in order to review future progress, was frequently mentioned.