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SECOND GLOBAL FORUM

Making the Most of Resources

Rabat, 7-10 September 1993

Second Meeting of the Collaborative Council

hosted by the National Office for Potable Water on behalf of the Kingdom of Morocco

MEETING REPORT

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INTRODUCTION

This report presents the outcome of the second Global Forum of the Water Supply and Sanitation Collaborative Council (WSSCC) held in Rabat, Morocco on 7-10 September 1993. Hosted by the National Office of Potable Water on behalf of the Moroccan Government, the meeting was attended by a total of 185 participants. They included sector professionals from a total of 50 developing countries and 49 external support agencies. A full list of participants is included as Annex 1. The meeting's theme was "Making the most of resources".

The WSSCC membership is open to sector professionals from national water and sanitation agencies in developing countries, multilateral and bilateral aid agencies, non-governmental organizations and appropriate international research institutions active in the field of drinking water supply and sanitation. The Council meets at two-year intervals, to provide a forum for members to exchange experiences and views and to agree on common approaches for advancing progress in water supply and sanitation, in accordance with its Mission Statement which says:

"The Collaborative Council's mission is to enhance collaboration among developing countries and external support agencies, so as to accelerate the achievement of sustainable water supplies, sanitation and waste management services for all people, with emphasis on the poor."

The WSSCC held its first meeting in Oslo, Norway, in September 1991. At that meeting, the Council established Working Groups to develop proposals for improving the sector's performance at national and international level in seven key areas:

- 1. Country Level Collaboration
- 2. Urbanization
- 3. Operation and Maintenance
- 4. Applied Research
- 5. Information Management
- 6. Information, Education and Communication
- 7. Gender Issues.

Each Working Group produced a comprehensive report, with recommendations for future activities. One objective of the Rabat meeting was to review the Working Group reports and to develop workable action programmes for the WSSCC and for individual Council members. The meeting also sought to explore a number of other important sector issues, and to identify ways in which these issues could be addressed further through Council-mandated initiatives. The new issues were;

- 8. Water A limit to growth? Economic Importance and Urgency for Pollution Control
- 9. Water Demand Management and Conservation
- 10. Promotion of Sanitation
- 11. Institutional and Management Options (Formal and Informal)
- 12a. Future Options for Official Development Assistance
- 12b. Need for Political Advocacy
- 13. More Partners: The Role for Non-Governmental Organizations (NGOs) and Consumers

14a. More Partners: The Role for Professional Associations

14b. More Partners: The Role for the Private Sector.

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Following plenary presentations of the WSSCC Working Group Reports, the Rabat participants divided into seven groups to discuss each report individually (Groups 1 to 7). The new issues were also introduced initially in plenary, and new groups (8 to 14) were formed to discuss them and formulate recommendations for follow-up (the single exception was the discussion on Official Development Assistance and Political Advocacy, (Group 12) which took the form of a round-table discussion).

The meeting theme "Making the most of resources" was picked up in two keynote papers:

- Mr Jaime Lerner, Mayor of the Brazilian city of Curitiba illustrated that city's remarkable progress in establishing a highly effective and environmentally beneficial public transport system, through a combination of political will, public involvement and the adoption of innovative approaches. Similar progress was being achieved in garbage handling and paper recycling, with substantial economic and environmental benefits.
- Mr Abdelali Filali Baba from the Directorate General of the National Office for Potable Water (ONEP),
 Morocco, described the ways that Morocco's scarce water resources have been developed and managed in
 a highly effective way, taking advantage of a variety of available techniques for conservation, water
 transfers and conjunctive use of surface and groundwaters.

It was intended that the third planned keynote speaker, Mr Mohamed T. El-Ashry, Chief Environmental Adviser to the President of the World Bank and Director of the Bank's Environment Department, would provide Forum participants with an opportunity to learn more about the operational arrangements of the Global Environment Facility (GEF). Unfortunately, Mr El-Ashry was unable to attend. His keynote address entitled "Toward Sustainable Water Resources Development" was presented by Mr John Blaxall, Manager of the UNDP/World Bank Water and Sanitation Programme. The address focused on the institutions and partnerships needed to implement commitments made at the Earth Summit in Rio de Janeiro, Brazil, in June 1992. The text of the address was distributed to participants after the meeting, along with explanatory notes on the Global Environment Facility, which provides resources for projects related to climate change, biological diversity, pollution of international waters, and depletion of the ozone layer.

This report includes the conclusions from each of the individual Rabat Group Sessions dealing with Issues 1 to 14, and the outcome of the meeting's plenary discussion of the Group findings. Full reports and Executive Summaries of the WSSCC Working Groups on Issues 1 to 7 were distributed to participants, and further copies can be obtained from the WSSCC Secretariat (address on the back cover). Introductory papers covering the new issues (8-11, 13 and 14) are also available from the Secretariat.

During the course of the meeting, a Programme Committee met regularly, to review the outcome from Group Sessions and to help formulate proposals for putting recommendations into action. Proposals from the Programme Committee were the basis for the final plenary discussions and for Council consideration and approval of future activities and action.

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1. COUNTRY LEVEL COLLABORATION

CLC Working Group Report

The report of the Country Level Collaboration Working Group was presented by Mr Chris Matumbike (Zimbabwe). The Group had commissioned 10 case studies on CLC in different countries, and these had revealed a wide range of CLC activities, both successful and unsuccessful. From these experiences, the Group had been able to formulate a series of Guiding Principles for effective CLC in developing countries. The Guiding Principles were seen as preliminary, but were presented for review by the Rabat meeting, with the aim that the WSSCC should publish the Guidelines and update them regularly as experience grows.

The Group made a series of recommendations of ways in which CLC might be improved (fuller details of these recommendations can be found in the CLC Working Group Report Executive Summary Sections 6 and 7):

- The WSSCC should develop and publish an advocacy flyer, spelling out the benefits of CLC and promoting use of the Guiding Principles.
- Agencies attending the Rabat meeting should designate individuals to report progress with CLC initiatives back to the Council ahead of the next Council Meeting.
- The WSSCC should maintain a register of individuals in developing countries and ESAs willing to
 participate in CLC activities (suggested as part of a wider Council role in disseminating information on the
 interests and needs of developing countries and the special interests of ESAs).
- International professional associations should be encouraged to foster national offshoots to stimulate information exchange and regular contact of sector professionals at country level.
- ESAs should look at the case study experiences in Sri Lanka (Asian Development Bank financed donor
 consultations at regular intervals) and Zimbabwe (Norwegian support for the secretariat function of the
 National Action Committee) and consider financial support for CLC mechanisms.
- CLC should be seen as part of a communication strategy, with new and existing CLC fora serving to raise
 awareness of critical topics such as gender issues, community management, water resources conservation,
 and other issues highlighted by the WSSCC. The Council should consider preparing a briefing document
 for national CLC indicating the types of issues which can be aired.
- CLC activities should include "Domestic Support Agencies" not directly involved in the provision of WSS services, as part of moves to change government role from provider to facilitator and promoter.
- CLC initiatives should be consistent with the sector orientation towards demand-driven approaches and
 maximum involvement of communities in decision making. NGOs and other support agencies are urged to
 join forces to initiate and assess trials on the involvement of communities in sector policy formulation and
 programme implementation.
- The WSS sector has the opportunity to take the lead in broadening intersectoral collaboration in ways needed to implement Agenda 21 Action Programmes.
- WSSCC-sponsored regional meetings provide a useful mechanism for national CLC groups to share experiences with other countries, and the Council is urged to continue its support for such meetings.
- There is a belief that variations and inconsistencies in ESA procedures and conditions inhibit effective CLC. Pilot efforts are recommended into possible ways of simplifying and rationalizing procedures in countries where good CLC mechanisms exist.
- The Council and individual members are urged to participate in monitored CLC trials and to prepare reports for consideration at the next meeting.. The CLC Working Group should be disbanded after Rabat.

Outcome of Rabat discussions

The Rabat Group Session on CLC produced additional insights into current CLC activities, identified barriers hampering more effective CLC, generally endorsed the recommendations in the CLC Working Group Report, and added some amplification of specific recommendations. The conclusions of the Group Session were as follows (Groups reported in a standard format, intended to assist the Council to evaluate priorities in its future work programme):

I Additional insights

- Country level collaboration differs greatly from country to country. One of the strongest influences over the style and effectiveness of collaboration is the political climate in the particular country. Political considerations must be accounted for in project design and implementation. This can best be accomplished, in supportive and positive ways, through the collaborative process.
- Most countries have adopted policies of decentralization for the WSS sector. Decentralization might be
 thought to be in conflict with collaboration. In fact, decentralization opens many doors to cooperation and
 collaboration, particularly among local bodies and line ministries working at the local level. Successful
 decentralization relies heavily on collaboration between such institutions taking place at many levels and
 in many forms.
- Lack of common or at least commensurate policies among ESAs hinders CLC. In Bangladesh, for example, despite regular meetings between ESAs, implementation policies differ and this has a debilitating effect on sector programmes.
- NGOs have a mixed reputation as CLC participants. In several countries, they are known to differ with
 government on project policies and implementation strategies (particularly in relation to subsidies) which
 is a matter of considerable concern. In others, NGOs are good collaborators and work closely with
 government either within government programmes such as in Sri Lanka or in parallel with them as is the
 case in Ghana.

II Suggested amendments to the CLC Working Group Report

Three proposals were made for additions to the report:

- cross sector collaboration is badly needed, especially among the major users of water: irrigation, industry
 and drinking water supply. There are numerous examples where lack of collaboration has resulted in
 conflict between users and need for substantial reinvestment, such as excessive drawdown of groundwater
 for irrigation causing a need to deepen and rehabilitate drinking water tubewells.
- consumer groups, including consumer organizations are a valuable mechanism for bringing the user into collaboration with manufacturers of equipment and providers of water. In enhancing the influence of the user, however, conflict should be anticipated and mechanisms for its resolution made available.
- additional collaborative mechanisms such as the African Union of Water Distributors (UADE) and Sulabh International deserve mention as organizations which regularly facilitate collaboration among ESAs, NGOs, and government.

III Agreed recommendations

The Rabat Group Session participants generally endorsed the recommendations in the CLC Working Group Report. The following recommendations should be seen as amplification of the CLC/WG recommendations, not as a substitute for them.

A. By the Council, through its Secretariat, Chairperson and Working Groups

Having fulfilled its mandate, the CLC working group should be disbanded. However, CLC is essential to the successful development of the sector and it is recommended that the WSSCC continue its interest, support and monitoring of CLC activities at country and regional levels over the coming two years. The Collaborative Council should:

- prepare and publish Guidelines for CLC which are designed for use at the country level. These should be
 clear, concise and user friendly and include the dos and don'ts of CLC as well as recommendations for
 countries wishing to undertake national surveys of existing CLC and to set up specific CLC activities.
- become an advocate of CLC, which would include the preparation, publication and dissemination of an advocacy flier,
- · initiate, support and monitor specific CLC demonstration projects,
- conduct in-depth analysis of selected CLC activities and new initiatives, so as to provide quantified evidence of costs and benefits, and
- report to the next meeting on progress and further recommendations.

B. By Council Members, individually or collectively

It is recommended that members of the Collaborative Council should:

- hold regional and country level workshops to gain better understanding of CLC locally and identify CLC opportunities. An example is the Southern African Regional Workshop planned for early 1994,
- undertake reviews of CLC in their own countries which would identify existing forms of CLC and how
 they can be strengthened,
- initiate specific demonstration projects in CLC, particularly in relation to community management and government/NGO collaboration, and
- maintain contact with the Collaborative Council in reporting on progress.

IV Tools available

There are no existing tools for CLC. This is seen as a major impediment to the use of CLC and to sector development as a whole, hence the above recommendation for preparation of guidelines.

V Unresolved issues

The principal unresolved issues relate to the mechanism by which the WSSCC supports/monitors CLC initiatives in member countries, and to the provision of financial support for the recommended activities.

VI Topics for further study

As listed above in the recommendations, topics for further study include

- individual country reviews of CLC,
- analysis of CLC, including costs and benefits, and
- monitoring and evaluation of specific demonstration projects in CLC.

VII Agencies willing to participate in follow-up activities

The UNDP/World Bank Group has taken the lead in planning for the Southern African Regional Workshop on CLC.

2. URBANIZATION

URB Working Group Report

The report of the Urbanization Working Group was presented by Mr Ivo Imparato (Italy). In the course of its work, the Group had collected information on some 400 studies, documented in a total of some 14,000 pages. The focus of the Group's work had been on finding more effective ways of serving the urban poor, taking a positive view of the process of urbanization.

The Group developed bases for action and guidelines for immediate action in six priority areas, and identified a series of topics for further research and empirical testing (fuller details of the recommendations can be found in the CLC Working Group Report Executive Summary):

- Security of tenure. The Group stressed that full legal regularization of land tenure should not be considered a prerequisite for water and sanitation service provision. Its guidelines expand on ways to achieve gradual upgrading of peri-urban settlements, based on mutual recognition by authorities and communities. Legal tenure should be seen as a step in the process, but not the first step.
- People's participation. The guidelines cover ways of establishing the necessary partnerships involving
 government agencies, banks, utilities, NGOs, grassroots organizations and consumer groups. ESAs are
 urged to support capacity building programmes needed to provide the necessary skills, policies, and legal
 and institutional frameworks.
- Cost recovery and resource mobilization. Sound financial management of utilities is seen as a prerequisite
 for gaining access to capital markets to finance new investments and to sustain WSS services. In the periurban sector, special techniques are needed to establish the willingness and capacity to pay of consumers.
 Urban utilities need to adopt modern management practices and a consumer-oriented approach. Women's
 needs and opinions need to be considered alongside men's.
- Appropriate technologies. The Working Group draws a clear distinction between appropriate technology
 and low-cost technology. In peri-urban areas, technology must suit the complex physical and socioeconomic
 conditions and must reflect the real needs of the users. Among a series of guidelines for selecting
 appropriate technology is a caution that transfer of technology options from rural to peri-urban settings
 may not be appropriate.
- Institutional reform and capacity building. Human resources development (HRD) programmes have to
 be directed towards attracting and retaining staff equipped to deal with peri-urban service provision. The
 establishment of partnerships among agencies is an important part of institutional reform, alongside the
 need for financial and administrative efficiency. Inter-institutional and interdisciplinary working groups
 with spending and decision-making powers are among the innovative arrangements suggested.
- Water resources conservation and management. The Working Group endorsed some key concepts
 arising from international meetings in Dublin and Rio de Janeiro, linking WSS closely with activities in the
 other water resources fields. Conservation and the sustainable use of water resources require the development
 and implementation of a comprehensive framework of economic and regulatory instruments and incentives.
 It is vital to get across the message that extending sanitation coverage to peri-urban areas is a vital
 component of water resources protection.
- Matters requiring further research and empirical testing. The Working Group listed 14 priority areas
 for further study and urged ESAs, national and local governments, sector agencies, utilities and NGOs to
 initiate applied research and information dissemination programmes to address them.

Outcome of Rabat discussions

By and large, the Rabat Group felt that the Working Group Report was very relevant and could be a useful tool for developing and managing water supply and sanitation services in the peri-urban sector. Some participants voiced the view that local conditions may require major modifications to its analysis and approach to lead to the development of appropriate and viable plans. Both the product and the process of the Working Group on Urbanization were commended. Participants added a number of insights, identified barriers, and developed priority recommendations:

I Additional insights

- The fact that WSS service expansion in peri-urban areas is a sound investment, stimulating economic
 activity, needs to be recognized and further explored. The political aspects of peri-urban WSS development
 also need to be discussed further, along with the political repercussions that arise if WSS systems are not
 developed.
- While the report recommends great caution in the adaptation of rural technology for use in peri-urban areas, it was felt that it is actually a viable option in many situations, especially in Africa.
- There is a need to distinguish between *de jure* and *de facto* security of tenure. In many cases *de facto* security is sufficient.
- Cost recovery is still difficult to implement in many countries, and its absence is a major barrier to progress. This should not be seen as an ideological issue. Rather, it should be recognized that sound financial management of utilities is actually in the interest of consumers. The relationships between finance mobilization, cost recovery and people's participation need to be more firmly established. Cost recovery is more than just a financial matter. The importance of pricing as part of a structure of incentives needs to be recognized, since it may lead, among other things, to a more responsible use and a more sensible allocation of water.
- There is an urgent need for action on institutional reform and capacity building.
- High costs of development are unaffordable to the urban poor. There have been cases where costs have been lowered to an extent where people invest in and build their own systems with technical assistance from NGOs and the State (Orangi Pilot Project in Karachi and Brazil).
- Although there was a consensus on the need for an integrated approach to WSS development, it was
 recognized that it is a complex affair and needs a planning process and people to plan. These are not easily
 available.
- Policy reform and institutional reform (rather than just institutional capacity building) are required for the sector. A country level understanding and situation analysis is necessary for that purpose (Lebanon is currently undertaking it).

II Suggested amendments to the URB Working Group Report

No major amendments were proposed to the Working Group Report. However, the need to reconcile the "global approach" with "local problems" was stressed again and again.

III Agreed recommendations

The demand-driven nature of the Working Group on Urbanization was evidenced by the great interest shown by the many WG members. The Rabat participants recommended that there should be some way actively to encourage implementation of the findings.

A. By the Council, through its Secretariat, Chairperson and Working Groups

The solution envisaged was not continuation of the Working Group, but rather the establishment of a network of participating institutions and individuals, building on the existing one. Such a network would be a Council-mandated activity, and its purpose would be to disseminate Working Group findings and gather feedback from the field on ongoing projects, to update the existing information bank and make it available, and to undertake research on priority topics identified in the WG Report.

B. By Council Members, individually or collectively

- Interested Council members should take part in the proposed network, which would not be a Council-sponsored Working Group, but would have a WSSCC mandate and would be made use of/supported by governments, bilateral and multilateral agencies.
- It was also pointed out that institutional and policy reform is really an implementation issue which is unique to a given situation. As such, beyond the further research that is required, we must "structure the learning we are doing together".
- The data collected by the Working Group, as well as its findings, should be made available to Universities.
- Terms of reference should be developed for determining what the Council-mandated network should do
 for the future.

IV Tools available

The following cases discussed by the Rabat Group offer important lessons: analysis of the postwar situation in Lebanon; the approach to tackling peri-urban sanitation problems adopted in Curitiba, Brazil; the work of the Orangi Pilot Project in Karachi, Pakistan; and the South African case, as outlined by the representative of the African National Congress.

V Unresolved issues

- The position to be adopted by ESAs when difficulties arise in the application of the principle of cost recovery, such as a limited appreciation of the role of pricing and a scarce willingness and ability to pay for services particularly common in the case of sanitation.
- There is strong pressure on utilities to operate in the peri-urban sector solely in accordance with an emergency perspective. Can and should water be properly planned for and supplied to unstable "illegal" settlements in cases in which they are likely to be demolished and shifted?
- Monitoring of projects on the basis of what has been learnt by the Working Group was proposed as a follow-up activity. Some felt that this was not possible.

VI Topics for further study

The recommendations on matters requiring further research and empirical testing put forward in the Working Group Report have been endorsed. As well as those, the following recommendations were made by the Rabat Group:

- Further study of cost recovery from a more holistic viewpoint, with particular regard to incentives.
- Measures to be taken by utilities for a step-by-step progression towards full cost recovery and access to capital markets.
- A study of the possible "paths" for incremental service improvement in peri-urban areas ("upgrading agendas").
- Establishment of clear criteria for technology choice by decision makers, regarding both conventional and innovative options.

VII Agencies willing to participate in follow-up activities

The organizations or countries that have shown interest in taking part in the WSSCC-mandated network on services for the urban poor are the following, in alphabetic order: France, Italy, the UN Centre for Human Settlements (UNCHS – Habitat), USAID (USAgency for International Development) and the Water, Engineering and Development Centre – WEDC (UK). In additional informal contacts, Austria, Denmark, Norway, Sweden and Switzerland, and WaterAid (UK) expressed interest in receiving information on the mandated activity, with a view to future networking. These countries and organizations would make up the core of the new network and would be charged with jointly preparing its Terms of Reference. The network on services for the urban poor would report on activities to the Council at its next meeting.

3. OPERATION AND MAINTENANCE

O&M Working Group Report

The report of the Operation and Maintenance (O&M) Working Group was presented by Mr José Hueb (World Health Organization). The Group was formed in 1988 under the sponsorship of WHO and adopted as a WSSCC Working Group in Oslo in 1991. It contains some 80 professionals and an advisory committee of about 10 members which develops action plans. Four guiding principles for effective O&M in the sector are spelled out in the O&M Working Group Report Executive Summary. In brief, they are:

- 1. Provision of water is a service and requires a service-oriented attitude by the agencies involved.
- 2. Supply of water to consumers should normally be based on the principle of meeting "effective demand".
- 3. Water systems should be managed and operated following the principles of good business practice, in a fully transparent way and accountable to consumers.
- 4. Emphasis is needed on sanitation development and on forging closer links between water supply and environmental sanitation in the planning of new programmes.

The Group has developed a comprehensive package of tools to help sector agencies in the adoption of strategies to improve O&M. They include case studies, evaluation tools for urban and rural WSS systems, management guidelines and models, and training course packages. Priorities have also been identified for further tool development to address emerging issues.

Recommendations, detailed more fully in the Executive Summary, include:

- ESAs and sector agencies using the tools to prepare guidelines and incorporating O&M into system designs.
- Workshops to promote information exchange on O&M.
- Capacity building initiatives to strengthen agencies' O&M capabilities.
- Development of monitoring systems and systematic collection of O&M performance data.
- Collaboration in determining the costs of effective O&M and studies to determine the cost savings and
 efficiency improvements deriving from improved O&M.
- Legislation, where appropriate, to restrict discharge of pollutants or use of materials which may cause O&M problems
- Incorporation of O&M principles in CLC discussions, to seek common policies among ESAs and government agencies.

- Promotion, through the WSSCC, of widespread use of the available tools.
- Updating of guidelines and tools through the WSSCC and the O&M Working Group.

In view of the momentum developed by the O&M Working Group's past activities and the evident need for further work in promoting the use of existing tools and developing new ones, the Group strongly recommended that its mandate should be extended for another two years.

Outcome of Rabat discussions

I Additional insights

It was felt that the O&M Working Group Report provided a good representation of the current situation. Barriers to achievement of improved O&M were felt to include the "mystification" of technical aspects, and lack of information and materials on O&M. An O&M training workshop in Namibia had illustrated the effectiveness which could be achieved by disseminating O&M materials and information. Participants agreed that the group should continue to emphasize the interdisciplinary nature of O&M issues and that, to establish good working relationships between governments and communities, social and institutional issues are as important as technical ones. Although several external support agencies appear to be concerned with lack of sound operation and maintenance practices in developing countries, such a concern is not reflected in the programmes they support at country or international level. The O&M Working Group experienced great difficulty in identifying the required financial resources for the development of tools and, especially, for their testing, adjustment, dissemination and implementation. These difficulties have considerably hampered the development of the Group's activities.

II Suggested amendments to the O&M Working Group Report

The Rabat participants considered that report could usefully be structured to differentiate between policy and management issues, and between urban and rural issues, though it was recognized that this might be difficult to achieve. More case studies should be added, particularly on community based and rural O&M. Issues and actions related to sanitation should be more specific and detailed. The concept of system optimization needed more clarification, to help formulate future actions. Future recommendations for action should be more issue specific and less generalised.

III Agreed recommendations

A. By the Council, through its Secretariat, Chairperson and Working Groups

- The O&M Working Group should continue to function and the 11 actions listed in the Executive Summary should be adopted as a basis for developing a new work programme. These actions include: supporting a movement towards viable autonomous agencies and groups; dissemination of "tools" and information; systematic monitoring of performance and costs of O&M; establishing policy and standards guidelines; and improving local capacity and efficiency of operations.
- Clear reporting and information channels should be established between country, Working Group and WSSCC activities.
- Representatives of NGOs, communities and small island nations should be included in the O&M Working Group to create a better balance.
- The WSSCC should develop strategies for overcoming the financial constraints faced by its Working Groups.

B. By Council Members, individually or collectively

- Members should promote use of the various tools that have been developed by incorporating them in projects, and feed back experiences of their usefulness.
- Regional and country workshops and university enterprise schemes should be organized and supported to promote more effective O&M.
- ESAs should appoint O&M focal points in their headquarters, and professional associations could assist by forming O&M sections or creating new O&M associations.
- Establishment of a periodic O&M newsletter would be a helpful initiative.

IV Tools available

Seven major tools have been developed or are under development, including: case studies, assessment and management guidelines, training packages on leakage control and O&M of rural water and sanitation systems, guidelines on urban WSS O&M and water treatment plant operation. These are listed and detailed in the Executive Summary. Some of these tools need further testing and adjustment, before they can be given widespread dissemination

Planned new tools are listed in the main report.

V Unresolved issues

- Interlinkages between technical O&M and other "social" issues such as gender analysis, education, information dissemination, etc.
- The ownership of WSS system assets.
- Employment terms and conditions of O&M staff.
- The differentiation between urban and rural issues.

VI Topics for further study

Private sector involvement in financing and managing O&M.

VII Agencies willing to participate in follow-up activities

Agencies expressed a willingness to participate in the following areas:

- Government of Kuwait review of private sector contracting of O&M.
- Government of Philippines review of establishing localised cost centres for O&M management.
- Government of Portugal information on monitoring and evaluation indicators being developed.
- Government of Chile application and testing of tools
- UNICEF India O&M of rural water supply and sanitation.
- Japan International Cooperation Agency (JICA) and the UNDP/World Bank Regional Water and Sanitation Group for East Asia and the Pacific implementation and testing of developed tools.
- Social Work Research Centre, India case studies and testing of community based O&M.

4. APPLIED RESEARCH

AR Working Group Report

The report of the Applied Research (AR) Working Group was presented by Mrs Samiha El Katsha (Egypt). The Group had formulated recommendations on the quantity, quality, focus and application of applied research and had made separate recommendations on the role of the Global Applied Research Network (GARNET) and on further tasks which might be undertaken by a continuing WSSCC Working Group on Applied Research.

Specific recommendations, detailed in the AR Working Group Report Executive Summary are:

Initiating more applied research

- ESAs should: examine their allocations to applied research, to test whether they represent a fair proportion
 of their total investments in the sector; make it easier for applied research proposals to be prepared, by
 providing protocols for such proposals, identifying contact officials and defining their main areas of
 interest; and encourage the inclusion of an applied research component, whenever appropriate, in new
 project proposals.
- Mechanisms need to be found for joint financing of research projects by different funding sources.

Achieving higher quality research

- Building the capacity of researchers and research institutions in developing countries should be an important consideration in the drafting of research proposals and in their evaluation by ESAs.
- Research proposals need to be developed with the help of guidelines. An example of such guidelines is contained in the Main Report of the Applied Research Working Group.
- A two-stage proposal process, in which a short pre-proposal is followed up later by a full proposal would
 assist developing country agencies in bringing forward practical research proposals for the support of
 ESAs. ESAs can encourage this process and help developing countries to formulate proposals which meet
 their particular requirements and which are directed to the right person(s) within the ESA for review.
- Research institutions in the industrialized countries should work more closely with those in developing countries in the preparation and implementation of applied research.

Focusing on priority needs

• The Group identified six priority areas for future research: Hygiene behaviour and mobilization of community support for and participation in sustainable water and sanitation projects in rural and low-income urban areas; Extension of existing methodologies for determining willingness to pay for water supply into sanitation and solid waste services; Alternative financing and cost-recovery mechanisms; Development of realistic methods and indicators for determining the impact of water and sanitation improvements (health, economic, and environmental impacts); Determining the optimum roles of public and private sector agencies in the planning, design, production, installation, operation, maintenance and monitoring of water and sanitation schemes; and Choice of an appropriate mix of technologies to suit urban areas with high, middle and low income neighbourhoods.

Better application of research findings

- All participants should be involved in the research process from the earliest possible time.
- ESAs should support the dissemination of AR results and the application of those results in the field. There is a need for constant interaction between AR activities and implementation projects.
- A greater proportion of programme funds should be invested in projects using the low-cost and sustainable technologies that have already been developed.
- · Ways need to be found to achieve close dialogues among researchers, implementors and policy makers.

Recommendations on GARNET

The Applied Research Working Group suggested that: GARNET should be a network of researchers whose primary function is to promote *current and proposed research*; it is better to define GARNET's role somewhat narrowly and thereby ensure doing a good job, rather than trying to do too many things; the list of topics covered by GARNET should be carefully reassessed and probably reduced to the most important ones; the target group of GARNET should not be confined to researchers but should also include professionals and ESAs who are interested in knowing what kind of research is being conducted in the sector; and there is an urgent need for a brochure explaining the role of GARNET and its relationship to its users and other networks.

Outcome of Rabat discussions

The Rabat Group Session on Applied Research made significant advances on the recommendations in the original AR Working Group report.

I Additional insights

Significant new insights and clarifications of the Executive Summary included:

- Applied Research needs strong advocacy, in terms which non-researchers can appreciate. Funding in
 general is shrinking, and research is particularly vulnerable. While not in the brief of the current group, this
 advocacy is an important future need.
- Applied Research involves all other WSSCC Working Groups. The AR group deliberately focused on
 process rather than defining the research agenda other groups have identified research agendas for their
 respective topics. Harmonizing applied research needs from the various groups into a more coherent
 research picture for the sector can strengthen the case for funding, as can documentation of AR success.
- Conclusions and Recommendations of the Executive Summary should be edited as described below to reflect more clearly the findings of the Main Report.
- Barriers that were highlighted in the discussion of the Summary included (1) inadequate presentation of the case for research, (2) lack of criteria and indicators for funders to assess the quality of research and its impact and value for money. Technical quality can be rapidly assessed, but impact and value for money are longer term issues.

II Suggested amendments to the working group report

No amendments were proposed to the Main Report. The following changes were proposed to Section 3 of the Executive Summary, largely to reflect points made in the Main Report.

- Section 3.1 should include a recommendation that researchers, having identified areas where research will be needed, should assess the expenditure patterns of funding sources to identify potential funders..
- Section 3.2 should include a statement that the significance of gender in the research should be explicitly
 considered in every proposal and point out that improved communications between practitioners, researchers
 and funding sources is needed to improve the quality of research through increasing its relevance and
 applicability.
- Section 3.3 should include a recommendation that users, practitioners, funders, and researchers all need to
 be involved in the process of setting research priorities. No clear mechanisms yet exist to achieve this, but
 efforts should be made to develop them.
- References to "funding agencies" should be changed to "funding sources", to reflect the sector's need to develop its own sources of funds (e.g. from revenues) as distinct from ESA budgets.

III Agreed recommendations

Major revisions were made to the recommendations concerning the future of the AR Working Group and GARNET.

A. By the Council, through its Secretariat, Chairperson and Working Groups

- That the Working Group as currently constituted should disband. However, the issues raised by the
 Working Group are critical to the efficacy of the sector to meet fundamental needs, and the Council should
 support the following mechanism to assure progress in this area before the next meeting:
- That GARNET, currently under the management of WEDC, take on increased responsibilities in applied
 research, with the explicit mandate of the Collaborative Council. These expanded responsibilities could
 include such activities as development of guidelines for assessing applied research proposals, initiatives to
 harmonize research priorities from different working groups, development of AR advocacy documents,
 etc. As at present, the organizations responsible for GARNET's funding and implementation would be
 reviewed at each Collaborative Council meeting.
- That the Collaborative Council establish an Advisory Group to provide oversight to GARNET, the
 members of which would also assist in performing GARNET's new functions on a voluntary basis. It is
 envisaged that this group would contain 6-10 members with an appropriate balance of members reflecting
 developed and developing countries; gender; researchers, practitioners and funders; and areas of interest.
- That WEDC draft Terms of Reference for both GARNET and its Advisory Group, to be reviewed by an *ad hoc* committee of interested members of the current AR Working Group, before the end of 1993. Once these TOR are finalized by the *ad hoc* committee, they should be submitted to the Collaborative Council for final approval.

IV Tools available

The Report of the Working Group describes the research process, includes guidelines for research proposal preparation, identifies some priority areas for research, and describes funding issues in depth. The report itself thus constitutes an important tool for those involved in applied research in the sector. Other tools may be developed and disseminated as necessary under the new GARNET-based AR initiative.

V Unresolved issues

There was generally a broad consensus on most discussion points. There was disagreement about the desirability and feasibility of quality indicators and criteria for applied research in the sector. These criteria could help researchers improve the quality of their work, and help funders better assess research proposals. Consensus was achieved on the need to consider the criteria indicated on page 23 of the Main Report, but disagreement on how best to achieve them.

VI Topics for further study

It was generally felt that the role of GARNET was not fully evident, but that the extent of demand for the network would become clearer before the next Collaborative Council meeting. Expanded TOR for GARNET need to be developed and studied by an *ad hoc* working group to determine: (a) the exact scope of activities to be considered; (b) the willingness and capability of WEDC and the proposed Advisory Group to expand the scope; and (c) whether the necessary financial support is available (indications on this last point are most encouraging).

Responsibility for Applied Research thus moves from a voluntary working group directly under the Collaborative Council to a funded activity within an institution (WEDC), working under a Collaborative Council mandate.

VII Agencies willing to participate in follow-up activities

WEDC will consider the viability of expanding its GARNET activities, which will involve a sharing of additional work with the voluntary labour of its new Advisory Group. The British Overseas Development Administration is likely to offer financial support for a modest expansion of GARNET activities under Collaborative Council mandate, and Swiss Development Corporation has also indicated that some financial support would probably be available to assure participation of DC members in the Advisory Group. Several members of the current Working Group, including R. Schertenlieb, D. Warner, S. El Katsha, A. Cotton, T. Pike and P. Kolsky have volunteered to serve on the *ad hoc* working group to develop TOR. Participation in GARNET and its Advisory Group will be sought from interested members of the current Working Group and others wishing to further the role and value of Applied Research.

5. INFORMATION MANAGEMENT

IM Working Group Report

The report of the Information Management (IM) Working Group was presented by Mrs Lilia Ramos (The Philippines). The Group's report contains strong advocacy for improved IM and includes numerous examples of its effectiveness in improving sector performance. Sources of support are identified, and the report makes a series of recommendations for actions to be taken by water and sanitation agencies to achieve effective IM at the national level:

- formulate official information policies for the sector in general and for their own institutions
- promote the formulation of information policies by other sector institutions
- take steps to ensure that all general plans and projects for the sector make appropriate provision for the development of IM capacities
- establish appropriate organizational structures and mechanisms for IM, including mechanisms for the formulation of information policies and plans, ensuring that such plans make adequate provision for:
 - establishment of appropriate organizational structures for IM
 - identifying target groups of information users and assessing their information needs
 - identifying existing sources of data and information relevant to the needs of users
 - establishment of effective mechanisms for collecting, processing, storing, retrieving and disseminating data and information at all levels, particularly from local or national sources
 - human resources, physical facilities and financial support
- ensure that overall responsibility for IM is assigned to a senior manager within the institution.
- apply and maintain appropriate IM tools to validate information and ensure its relevance, and to facilitate the exchange of information
- provide information products and services tailored to the needs of users and promote their effective use through publicity and the familiarizing of users with the products and services available
- take steps to designate, recruit and train the various types of staff required by the different activities in the area of information
- provide appropriate and adequate premises, equipment and consumables for IM
- establish an adequate and separate budget for IM, including both recurrent and capital expenditure and a foreign exchange component

monitor and evaluate IM activities.

Outcome of the Rabat discussions

The situation analysis contained in the Working Group report was agreed. Particular importance was attached to the essential role of information management for effective planning, management and decision making.

I Additional insights

- Possibly more emphasis could be given to the need to allocate resources (financial) for the development and sustaining of information systems. Although no precise figures could be quoted, it was clear that only a very small proportion of development investment was required to develop satisfactory information systems. The value of reliable information to support project proposals submitted for external and or internal funding is also important; good proposals supported by sound information are always funded!
- A well established information network in a country can help moves towards decentralization of responsibilities and decision making. An example is improved information capability at district level in Ethiopia.
- It was noted that the pivotal role of IM systems was identified in the reports of most other Working Groups:
 O&M need to identify indicators; Urban recognition of a lack of information as a constraint; CLC need to know who does what, when and how and with what results; IEC the need for IM as a tool for advocacy at all levels.
- Water supply and sanitation IM and monitoring systems need to be developed as components of broader water resources management, bearing in mind that much information required for water supply and sanitation planning exists in other institutions hydrogeological, census, meteorological, etc. Here it must be further stressed that the collection and analysis of data costs money and therefore should be paid for by the users whether directly of indirectly: through water tariffs, taxes, etc. The user pays approach should be applied to information, to render systems sustainable. Institutions responsible for IM systems must be able to generate revenue to support and continuously improve their services.
- Particular reference was made to paragraph 5.8 of the Executive Summary where provision for funding of
 information support should also be included in nationally funded as well as externally funded projects.
 ESAs could make such a provision a condition for funding activities.
- The need for coordinated development of IM systems should be emphasized, to assure complementarity, avoid duplication and render systems more effective.
- The main barrier to achievements in the area of IM is the lack of appreciation at the decision making level
 of the value of information in planning and management and the potential sustainable savings. Advocacy is
 needed for IM. Case studies of countries which have developed and successfully implemented systems
 would be valuable. A follow up on the initial case studies in the second WHO/UNICEF Joint Meeting
 Report could be useful (Brazil, Togo, Egypt, etc).

II Suggested amendments to the Working Group Report

- Editorial changes can usefully be made to the order of reference to institutions in the box on page vi. Also, in paragraph 4.2 it was felt that a clear statement should be made of the need for information policy to be linked to the mandate of the institution responsible for operating the system.
- A recommendation should be included suggesting the pooling of resources as a means of minimizing the costs of developing IM systems

- Clearly a starting point for country level collaboration would be making an investigation of national information and development activities. Such an investigation could provide a "yellow pages" style book for locating relevant information and capability at country level.
- More reference could be made to activities over the past two years related to the lusophone countries, where through IM investigations a great deal was found to exist which had not been known previously.

III Agreed recommendations

A. By the Council, through its Secretariat, Chairperson and Working Groups

- Country level collaboration for information management is recommended i.e. collaboration among national agencies and ESAs. Capacity building for IM can be a mechanism for country level coordination to be improved on the one hand, while the coordination and collaboration will enhance IM.
- The approach developed in the WHO/UNICEF Joint Monitoring Programme should be endorsed by the Council and recommended to Members as a valuable tool for initiating activities while having the flexibility for adaptation to country specific needs and the capacity for extension in response to demand. The systems are being applied with repeated success in several countries, including Nigeria.
- It was concluded that the IM Working Group had completed the tasks set for it by the Collaborative Council and could therefore be discontinued. However, a need was identified for a mechanism to be established to monitor the application of its recommendations to Council Members and to report to the next Council Meeting in 1995. To do this, a protocol could be developed, possibly by IRC, UNICEF and WHO, containing indicators to evaluate how IM was being taken up as an issue by governments and ESAs in this programme. A timetable for this work should be prepared, together with a workplan, to enable the necessary report to be prepared. Also case studies on IM/monitoring experience could be developed as advocacy tools.

B. By Council Members, individually or collectively

The recommendations contained in the Working Group Report were endorsed by the group.

IV Tools available

Tools available to support management information development are listed in the Working Group's Main Report.

V Unresolved issues

No clear guidelines are available listing the measures to be taken to strengthen management information systems in developing countries. This has to be resolved nationally, on a country by country basis.

VI Topics for further study

Monitoring and tools that can be used to advocate the development of information management capacities..

VII Agencies willing to participate in follow-up activities

The Rabat Group Session participants indicated their willingness to advocate involvement of their agencies in the recommendations for follow-up, and they hoped that the remainder of the Council membership would follow suit.

6. INFORMATION, EDUCATION AND COMMUNICATION

IEC Working Group Report

The report of the Information, Education and Communication (IEC) Working Group was presented by Ms Ebele Okeke (Nigeria). The IEC Working Group had been established to build on the work of an earlier Core Group on IEC, and to develop implementation mechanisms and mobilize resources for communication activities. As a direct result of the Group's work, IEC initiatives are now under way in Nigeria and Guinea Bissau, with the support of UNICEF and the Dutch Government. The Group has also organized the preparation of three publications, which were seen as valuable tools for implementing IEC activities. A series of recommendations for actions by the WSSCC and by individual Council members are detailed in the IEC Working Group Report Executive Summary, and are summarized below.

For individual Council members

- Promote the creation of a Communication Culture within the agency
- Establish a communication unit or an information unit in the agency, linked to activities in both IEC and information management.
- Introduce communication components into new and existing programmes, making use of the guidelines
 provided in the IEC Resource Booklet, and include communication components in any capacity building
 initiatives.
- Use country-level collaboration mechanisms to promote IEC and adoption of the tools package.
- Take individual opportunities to promote the sector's Common Vision and let the WSSCC know of any successful projects which can be used for sector promotion.

For the WSSCC

- Use the IEC Working Group Report and tools package to promote capacity building and training and urge the incorporation of IEC in national sector strategies and programmes.
- Publish a guideline package, including the tools developed under the auspices of the Working Group.
- Develop and document the sector's Common Vision, and ensure that the WSS sector is well represented in promotional activities linked to implementation of Agenda 21.
- Seek financial support for production of WSSCC documents in as many languages as possible.
- Monitor the IEC pilot projects initiated in Guinea Bissau and Nigeria and help other national agencies to undertake communication activities.
- Develop contacts with other agencies, such as the Carter Foundation, to seek collaboration in sector advocacy and promotion.
- Note the linkages between IEC and other WSSCC Working Group recommendations. Ensure that IEC
 materials recognize the special identified communication requirements of women and of those living in
 peri-urban areas.
- Promote the inclusion of IEC in any discussions of sustainable development issues.
- Coordinate the monitoring and evaluation of IEC initiatives and keep the guidelines up to date.
- The Group recommended that its mandate should be extended for another two years, and that one important task should be to help develop a global advocacy approach.

Outcome of the Rabat discussions

The Rabat participants recognized the considerable achievements of the IEC Working Group, and the value of the initiatives taken by the Group in addition to preparation of the Group Report. Particular reference was made to the positive outcome of negotiations with the Netherlands government and the resulting pilot projects in Nigeria and Guinea Bissau, the preparation of the resource booklet, advocacy flyer and case studies, and the discussion paper on advocacy. Few changes were suggested to the IEC Working Group's recommendations for future action, but suggestions were made for additional emphasis in the report itself.

I Additional insights

- IEC is about partnerships among sector professionals, politicians, communities and ESAs/NGOs. It seeks to work in the context of a communication culture, involving relating, listening, understanding, serving partners' interests, and cooperation. As such it is the means for linking sub-strategies for development: sub-strategies for economic, social, skills/knowledge, institutional and technology choice aspects. The guidelines described in the Working Group report and the tools package are useful to enable agencies to formulate realistic communication/education projects or to incorporate communication components in existing projects and programmes, to foster sustainable development.
- Everyone has a different perception of the importance of water. Users are at individual, community, country, regional and global level. Multi-layer communications are needed. Sector professionals need to be aware of the importance of dialogue with users, but they will need communications specialists to carry out the IEC component.
- The Working Group Report and especially the Resource Booklet are useful for formulating projects. The Resource Booklet should include a list of communications specialists or where to find them. The Report should elaborate more in the following areas:
- How to take into consideration the voice of the user;
 - How to incorporate earlier initiatives such as PROWWESS tools, AKS (Agricultural Knowledge System), and PRA (Participatory Rapid Appraisal), so as not to reinvent the wheel;
 - How to train engineers to deal with social problems and train social scientists to understand engineering problems

II Suggested amendments to the working group report

- The Working Group Report should emphasise education more strongly. The Report is mainly a useful tool for Council members, while the Executive Summary could usefully be distributed more widely.
- The advocacy document "Towards a Communication Culture" should preferably be shorter and punchier, as it will be used to influence politicians.
- Terminology needs to be used more carefully.

III Agreed recommendations

The Rabat participants endorsed the IEC Working Group recommendations, as detailed in the Group's Executive Summary, adding the following recommendations:

A. By the Council, through its Secretariat, Chairperson and Working Groups

• Enlarge the network of countries contributing to information on IEC to include those who are already active (e.g. Bangladesh, India and Indonesia) and those who are interested to start activities.

B. By Council Members, individually or collectively

Promote and coordinate IEC initiatives alongside sector monitoring and other information management
activities. A communication or information unit may be created in a leading sector agency, an individual
active "focal point" could be used, or this function could be carried out by an NGO.

IV Tools available

The Resource Booklet – "Communication in Water Supply and Sanitation" – should be published and translated into other languages and widely distributed – sector professionals need it. The advocacy document – "Towards a Communication Culture" needs to be shortened to make it suitable for use by politicians. More tools have been developed by PROWWESS (the programme for Promotion of the Role of Women in Water and Environmental Sanitation Services) and other agencies. Promotional tools are still needed.

V Unresolved issues

The Rabat participants agreed with the IEC Working Group's analysis and encountered no additional unresolved issues.

VI Topics for further study

The main focus of future study should be global advocacy. There is a need to develop an adequate approach to advocacy (be it political advocacy, promotion of WSS in the development debate, including in context of Agenda 21, or discussing new services with users) to incorporate existing experience on advocacy from other sectors, and to avoid possible pitfalls of some advocacy measures.

A leaflet and information package for ministers should be prepared for the proposed Ministerial Meeting in the Netherlands in March 1994.

VII Agencies willing to participate in follow-up activities

Agencies indicating a willingness to participate in future activities include UNICEF, IRC, and Red Cross/Red Crescent.

7. GENDER ISSUES

GI Working Group Report

The Summary Report of the Gender Issues (GI) Working Group was presented by Ms Wendy Wakeman. The GI Working Group worked in a different way than the other WSSCC Working Groups, sending representatives to each of the other WG meetings, so as to ensure that all the recommendations included a gender perspective. In addition, the GI Working Group organised the preparation of a *Gender Issues Sourcebook*, giving comprehensive information on available documents and tools relating to gender approaches in the WSS field. In its Summary Report, which includes a review of the current situation in the sector, the GI Working Group formulates objectives and goals to provide members of the Collaborative Council with suggestions as they attempt gender-sensitive programming. The Group recommends that agencies should:

 Review and refine current policies and organizational procedures to make them supportive of gendersensitive programming. Evaluate current tools (guidelines, checklists, etc). Refine these and develop new ones where required. This may involve, for example, developing and testing indicators and data collection

methods for measuring women's and men's participation. Monitoring and evaluation tools may also be further tested and applied.

- Promote awareness of gender issues at community, national and international levels through documenting
 experiences with gender-sensitive programming, and develop communication channels for effectively
 disseminating lessons learned. Individual agencies are encouraged to complete case studies which can be
 compiled and disseminated, thus providing a growing dossier of experiences in different geographical
 regions and covering different sizes and types of projects.
- Mobilize resources (financial and human) needed for the integration of gender issues into the regular programming process. This includes the articulation of effective fund-raising strategies.
- Promote training in gender issues at all levels agency, government and community. Test and refine existing tools and develop new tools where required.
- Endeavour to increase the number of women sector professionals, managers and project participants and to
 ensure that women are involved in the full range of sector activities (water supply, water conservation,
 sanitation).

Outcome of Rabat discussions

The Rabat participants endorsed and commended the extensive work done by those involved in the development of the Gender Issues Sourcebook, and the Summary Report. It was also observed that the approach taken by the Gender Working Group to attempt to include (and fully integrate) gender issues in all other working groups is a most appropriate and effective strategy.

I Additional insights

- The Sourcebook was developed to focus primarily on gender issues at the project level. Intentions are to develop a much broader framework which will be refined for application at the policy and international levels.
- There is an urgent need to demystify gender issues at all levels especially at policy and international levels as many people do not fully understand the underlying principles embodied in the gender debate. This might be achieved through the development of specific information/advocacy and training materials aimed at the various levels. More emphasis and financial resources should be made available for gender sensitization and capacity building among decision makers and implementors and within communities.
- A major constraint is the lack of facilitating mechanisms at institutional level to address and integrate
 gender issues fully into sector policy formulation, planning and strategy development and to ensure that
 such issues are fully integrated and mainstreamed in all development programmes.
- Many development plans (including integrated ones) lack budget line items which specifically earmark resources for gender development issues. In developing such budgets, planners should be careful not to marginalize the gender issue. Rather, they should try to reinforce its integration into the overall development process. Budgets for gender issues need not necessarily require additional resources. Planners are therefore encouraged to examine the restructuring of existing budgets to facilitate gender approaches and where necessary to advocate for additional resources.
- The current lack of disaggregated gender data and relevant information in the water and sanitation sector hinders effective planning and appropriate policy formulation for enhancing women's role in decision making, implementation and management in the sector.
 - The Sourcebook is considered to be relevant and appropriate for gender issues at the project level within the overall sector. It cannot be expected that one document covers the whole spectrum of gender issues at all levels. In light of this, it was recommended that the basic framework of the sourcebook be used to

further develop adapt and modify other materials for addressing gender issues at policy, programme, national and international levels.

II Suggested amendments to the Working Group Report

No substantive additions/deletions/changes were recommended for the Summary Report.

III Agreed recommendations/actions

In addition to the several recommendations put forward in the Summary Report, the following were recommended for follow-up:

- That the current Sourcebook be disseminated in its present form for country level application, field-testing
 and refinement through Collaborative Council members and that support be given to implement/
 institutionalize its recommendations.
- That additional sourcebooks be developed in an integrated manner to address other levels (other than project level) i.e. policy, planning and international levels.
- That the Working Group on Gender Issues continue its work to: a) ensure that these issues are fully addressed and integrated into the other working groups and their papers; b) arrange that there be representation of the gender group in all other working groups and that members of other working groups also invited to participate actively in gender group issues.
- That disaggregated gender data be collected for purposes of improving gender planning, policy formulation and strategy development.
- That gender sensitization be undertaken at all levels.
- That capacity building for dealing with gender issues be done at all possible levels, including in schools, for longer term benefits and gender behavioural change.
- That gender specific objectives be clearly defined at all levels especially the planning stage of projects/ programmes and that clear and measurable indicators be developed for effective monitoring of expected outputs.

IV Tools Available

In addition to the Sourcebook, which is an effective tool, there are a number of references in the document to other pertinent information on available tools.

V Unresolved issues

The Rabat participants were fully agreed on the recommendations.

VI Topics for further study

- There is an urgent need for further research on gender analysis as a basis for improved planning, promoting greater gender equity in the sector and for advocacy purposes.
- There is need for further study of time and energy spent on water related activities and how these constrain women's development, how any time gains are used, and how to increase financial incentives and access to credit for women.
- A framework for methodologies including a clear rationale needs to be developed for gender issues pertaining to policy and decision making at all levels.
- There is need to explore appropriate entry points for gender issues in other development strategies.

 Additional research needs to be done to analyse the constraints in order to strengthen collaboration between ESA's and governments for enhancing the promotion of gender issues in all development programmes

VII Agencies willing to participate in follow-up activities

It was recommended that as a starting point the UNDP/WB Water and Sanitation Programme, INSTRAW (the UN International Research and Training Institute for the Advancement of Women), UNICEF, WHO, and the IRC International Water and Sanitation Centre support immediate follow-up. Other agencies, NGO's and national governments were also invited to volunteer their support.

8. WATER, A LIMIT TO GROWTH: ECONOMIC IMPORTANCE OF AND URGENCY FOR POLLUTION CONTROL

The Group Session on this topic was based on a plenary presentation by Dr Richard Helmer (WHO) and a discussion paper jointly authored by Dr Helmer and Dr Ivanildo Hespanhol (WHO).

Basis for action

The Rabat Group emphasized particularly the serious impact of deteriorating water quality on the availability and cost of drinking water supplies. Water quality management may become the key to combating water scarcity in many water-short countries and in urban areas. Improved sanitation and pollution control are vital elements in water resource management strategies. Transboundary pollution gives the issue an added dimension.

So far, developing countries have paid little attention to pollution control, but the serious situations now developing in many countries make this an issue of prime importance. The council is well placed to provide effective advocacy for improved pollution control, adding the economic arguments to the health and social messages which will be developed in its activities in support of sanitation promotion (Issue 10).

A great deal of information exists in scattered form, which could be brought together to help identify appropriate tools for pollution control strategies and technical options for such key issues as artificial recharge, wastewater reuse and recycling. Other issues meriting collective examination include legislative and regulatory measures and economic instruments for pollution control.

Existing resources/tools

The Group made mention of GEMS/WATER publications, the reports of ESCAP Regional Seminars on Groundwater and Surface Water Quality and the Warsaw Seminar on Water Quality Control in Developing Countries, as information sources. WHO's Water Quality Guidelines and UNEP/WHO publications on monitoring and assessment of water quality are seen as important tools.

Recommended actions

By the Collaborative Council

The Group believed that the Council could itself undertake an advocacy role, raising awareness of the importance of water quality management in both developing countries and economies in transition, particularly those of Eastern Europe.

By Council members, individually or collectively

Council members are urged to contribute valid case studies (the French river basin model was mentioned as an example) for consideration by a Working Group, which WHO had volunteered to help convene. Meanwhile, ESAs and developing country agencies should recognize the critical economic importance of water pollution control and initiate activities which will provide multiple benefits.

Agencies willing to participate in follow-up activities

Agencies willing to join in any Group activities included WHO, UNEP, DANIDA (the Danish International Development Agency), ODA (the Overseas Development Administration – UK), UNDP and the World Bank.

9. WATER DEMAND MANAGEMENT AND CONSERVATION

The Group Session on this topic was based on a plenary presentation by Mr Saul Arlosoroff (WSSCC Consultant) and a paper by Mr Zhang Zhun describing Urban Water Conservation Experiences in China.

Basis for action

Demand management is seen as a topic of clear relevance to the WSSCC, since it is already apparent that water resources are set to become a constraining factor on development in many countries. Through effective demand management, considerable reduction in water use (and water waste) can be achieved, deferring and delaying the need for substantial investments in new resources. Demand management actions increase cost recovery, and improve the institutional and financial capacity of sector agencies. To date, few demand management approaches have been employed in developing countries. There is a need to develop techniques and approaches for establishing real demand (what people and agencies actually need and are willing and able to pay for). The reasons why only a few countries have applied demand management include lack of awareness of potential benefits, lack of political will, and shortages or lack of trained personnel and equipment.

Existing resources/togls

The experience of the few countries with effective demand management programmes (China, Singapore, Israel and parts of the US) can provide valuable help to others. A range of technologies is available for leak detection, metering, telemetry and computer control.

Recommended actions

By the Collaborative Council

The Group emphasized that no other global organization has so far taken on the task of providing comprehensive guidance and advocacy for demand management. The Council is therefore well placed to take a lead on an issue which could have a substantial impact for a great many of its members. Collection, analysis and dissemination of case studies would be a valuable starting point, from which appropriate guidelines could be developed. Establishment of a demand management data base for demonstrating benefits would be a powerful advocacy tool. Advocacy should also be taken on by the WSSCC, and the subject should be part of any advocacy literature developed after Rabat. The topic needs to be linked with other Council initiatives, including Institutional and Management Options (Issue 11), O&M (Issue 3), IEC (Issue 6) and Information Management (Issue 5). The Rabat participants saw a strong case for a Council Working Group, or for demand management to become a long-term focus for the O&M Working Group.

By Council members, individually or collectively

Both ESAs and DC participants are strongly encouraged to consider initiating demand management practices on existing projects. In addition, ESAs can stimulate demand management by recognizing the economic benefits when appraising projects for support.

Agencies willing to participate in follow-up activities

All the participants saw demand management as a subject which they should be supporting, as the WSSCC is seen as the only existing body through which a joint approach to this important subject can be made.

10. PROMOTION OF SANITATION

The Group Session on this topic was based on a discussion paper by Ms Mayling Simpson-Hébert (WHO) and a plenary presentation by Ms Simpson-Hébert and Mrs Margaret Mwangola (KWAHO).

Basis for action

The Rabat Group Session reinforced the urgency of the need for action on the promotion of sanitation. The compelling statistics and diagnosis of needs in the plenary presentation are seen as an overwhelming case for top priority to be given to sanitation promotion. The title of the Water Supply and Sanitation Collaborative Council also makes a Council initiative essential. The issue is primarily one of advocacy and education at all levels. The Rabat Group recommends that activities should be especially directed towards high-risk populations peri-urban and slum areas and others. The target should also be to achieve incremental improvements – starting with what people already have – rather than proposing wholesale introduction of new systems.

Ways need to be found to raise the profile of sanitation, not just among beneficiaries and politicians, but, critically, also among sector professionals, who need to see the provision of effective and sustainable sanitation services as a satisfying and rewarding activity.

Existing resources/tools

A considerable amount of literature exists on both technical and social approaches to effective implementation of sanitation programmes. A focus on behavioural aspects is also now developing in a number of places.

Recommended actions

By the Collaborative Council

The Council must have a Working Group on Promotion of Sanitation. The Group's task should be to develop recommendations for activities by the Council and its members, and to stimulate continuous advocacy. Within the first two years, it should seek to initiate promotion in as many countries as possible, and to monitor the results for reporting back to the next Council meeting.

By Council members, individually or collectively

The sanitation imperatives for the Council itself also need to be recognized by individual members, be they from NGOs, ESAs or DC agencies. Measures to improve the profile of the sanitation subsector can and should be introduced immediately. ESAs need to treat sanitation as a topic in its own right, not simply as an occasional add-on to a more attractive water supply programme. It requires separate analysis, with a different timescale, and in many places should have priority over increased investment in improved water supplies. Hygiene education materials and procedures are well-established enough to provide tools for campaigns.

Council members are strongly urged to adopt the priorities suggested for the Working Group -i.e. to focus on high-risk populations and the achievement of incremental improvements - and to report their progress back to the Working Group.

Agencies willing to participate in follow-up activities

Many Rabat participants indicated a willingness to participate in the Working Group, and WHO agreed to coordinate development of the Group's terms of reference, after which a Group Coordinator will be chosen.

11. INSTITUTIONAL AND MANAGEMENT OPTIONS

The Group Session on this topic was based on a plenary presentation by Mr Mike Garn (World Bank).

Basis for action

Many, if not most, failures of water supply and sanitation projects can be traced back to institutional or management deficiencies. There is a widespread recognition that establishment of effective institutional structures and management procedures are key elements in sustainable sector development. Achieving the right structures is not so easy. Geographic, cultural and social differences make it difficult to develop standard approaches; and the differences between urban and rural needs are substantial.

So many of the WSSCC's ongoing and proposed activities are directly linked with institutional issues that a Working Group on Institutional and Management Options seems a natural response. The Rabat Group Session participants were convinced that a new Council Working Group should be formed and that it should establish close links with several other WSSCC Working Groups – notably the O&M Group and (if they are to be established) the ones on Demand Management and Water, a Limit to Growth.

Existing resources/tools

Though a variety of guidelines and tools exist, there is a definite need for analysis and judgment, so that countries have ways of assessing the suitability of the many options open to them. Documentation of case studies on different institutional arrangements and management practices would further strengthen the capacity to form the right judgments. The existing case study on experiences in Honduras is a good example.

Recommended actions

By the Collaborative Council

The Rabat Group Session recommends that the Council should establish a new Working Group, and that its scope should include: technical capacity of WSS agencies; management capabilities, with specific attention on community participation and community management approaches; measures for decentralization, including delegation of power and responsibilities to local level organizations; tariff policies, cost recovery and cross subsidies related to different levels of service; pricing mechanisms as a means of signalling scarcity and encouraging conservation; institutional and management implications of treating water as an economic good; and the administrative framework in which institutions have to operate, including the political will to establish viable water and sanitation agencies. Activities will be determined by the Group, but should include development of a range of models, based on documented experiences.

By Council members, individually or collectively

All Council members have experiences to share (good or bad), and they are encouraged to provide the Group with examples to help develop the models.

Agencies willing to participate in follow-up activities

Agencies expressing a willingness to take part in the proposed Working Group include Caisse Centrale de Coopération Economique (CCCE) of France and ONEP of Morocco.

12. ROUND TABLES ON OFFICIAL DEVELOPMENT ASSISTANCE AND POLITICAL ADVOCACY

The Round Table discussions were chaired by Minister Catalano of the Italian Ministry of Foreign Affairs. They were intended to provide an opportunity for participants to exchange opinions freely on two key issues – Political Advocacy and Official Development Assistance — without any requirement to develop official policy lines for the Collaborative Council. The following brief notes record the substance of the discussions:

12A. Official Development Assistance (ODA) in the sector

Most donors are facing flat or reducing budgets and are cutting back on the number of countries of operation and size of projects. This leads to stiff competition for dwindling resources. Many donors are following the new aid trend of developing new programmatic themes such as poverty alleviation, environment and local capacity building and water and sanitation has to be subsumed under these. Also, after the Rio meeting and liberation of Eastern Block countries, the "menu" has changed and more demands are placed on limited resources by the environmental lobby and other needs.

All this leads to a need to make best use of resources — "more with less". In the future ESAs should not be seen as milk cows but as a broad resource that can be called upon. New projects should be catalytic and ESAs need to find their comparative advantage and hence a niche in the sector.

New projects should emphasize capacity building and stress symbiotic partnerships between bilaterals and multilaterals, governments and communities, NGOs and the private sector. They should be demand based and provide an opportunity for learning.

National strategy and action plans are important tools to help to coordinate donors and make best use of resources.

12B. Political Advocacy

The WSS sector is at a threshold and facing new challenges. The Water Decade promotion machinery no longer operates and many countries no longer put a high priority on WSS.

Strong advocacy is required both from countries and ESAs to keep the sector alive. Also, the linkage between water and sanitation and the new programmatic themes should be understood and emphasized/promoted. Analysis is needed to find out why WSS priority has fallen.

The Working Groups on communications and information could usefully be combined into an advocacy group and expanded to include political scientists, marketing and lobbying specialists. An advocacy strategy needs to be developed which would include actions at international and country levels and establishing information management at country level. NGOs could play an important role in this.

13. MORE PARTNERS – THE ROLE OF NGOs AND THE CONSUMER

The Group Session on this topic was based on a discussion paper by Mr Bunker Roy (Social Work Research Centre, India) and on plenary presentations by Mr Roy and Mr John Winward (International Organisation of Consumer Unions).

Basis for action

The voluntary sector has a vast fund of knowledge, experience and collective skills in the field of drinking water supply and sanitation. Voluntary agencies and NGOs have already made significant contributions towards solving the problems of the poorest of the poor, and their experiences can helpfully be shared with ESAs working as equal partners. NGOs are strong allies in matching projects with the real needs of users – a prerequisite for sustainability. However, NGOs are not always seen as natural partners in sector development. In some countries they have problems in establishing legitimacy. ESAs, and particularly the Council itself, can help to promote the role of NGOs in developing countries.

There are many different types of NGOs, ranging from grassroots level voluntary organizations to international agencies with considerable resources and technical capabilities. It is not always clear which forms of partnership will be most appropriate for particular water programmes; nor is it apparent which NGOs are most involved in WSS sector activities.

The issue of the role of the consumer (or user of services) is closely linked to that of NGOs, who often provide the vital link. Agencies recognize the importance of involving community members in all stages of projects, and the value of community management in many cases, but the methods of achieving the most effective partnerships with communities are far from clear. The WSSCC is well placed to collect and disseminate experiences and to act as a sounding board for members' opinions.

Existing resources/tools

One helpful source of information identified by the Rabat participants is the document *Community Management Today* – the report of a workshop on the Role of Communities in the Management of Improved Water Supply Systems held at IRC in November 1992.

Recommended actions

By the Collaborative Council

One very useful role for the Council would be to promote greater involvement of NGOs as equal partners with the community and sector agencies in WSS programmes. The Council may consider that a Working Group should be created to make an inventory of existing forms of community management and to provide guidelines and recommendations on how NGOs can best be included as regular partners. The Rabat Group suggested that the Council should sound out NGOs to judge whether there is a need for such a group.

By Council members, individually or collectively

Whether or not a group is created, WSSCC members should provide the Secretariat with examples of positive outcomes of collaboration with NGOs, so that a dossier can be built up to support advocacy of a greater role for NGOs. Members should also commission national inventories of NGOs active in the sector, listing their skills, services, strengths, etc. The Council could then maintain a register of NGO directories or data bases. Existing NGO fora should help to compile and promote the widespread use of such an inventory.

14A. MORE PARTNERS – THE ROLE OF PROFESSIONAL ASSOCIATIONS

The Group Session was based on a discussion paper and plenary presentation by Mr Tony Milburn (International Association for Water Quality – IAWQ).

Basis for action

Professional associations can make a significant contribution to the development process in many newly independent states and developing countries, but their potential has hardly been exploited. They 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. The strong feelings of membership and commitment in professional associations make them very useful for voluntary collaborative initiatives such as: organisation of conferences, seminars exhibitions and technical meetings; production of technical papers; liaise with government on laws and standards; committees to produce standards and write manuals; and training and certification.

National professional associations need assistance and seed money to become established in developing countries and strengthening of regional associations can also help in developments at national level. Development of professional associations could be an important initiative in the promotion of more effective country-level collaboration

Existing resources/tools

Several existing international professional associations have the capacity to assist in the advancement of national initiatives to build up national associations for sector professionals.

Recommended actions

By the Collaborative Council

The Rabat Group Session recommends that the Council should actively promote the setting up and strengthening of national and regional professional associations and promote their effectiveness as a local, moderate-cost solution to communication, training and standards setting within the sector.

The Rabat participants did not necessarily see a need for a WSSCC Working Group on this topic, as most of the needed information is available.

By Council members, Individually or collectively

Multilateral and bilateral agencies are urged to support the development and strengthening of national and regional professional associations. Steps should be taken to foster collaboration between established Professional associations in industrialised countries and those in developing countries. Components for the development of professional associations could be included in WSS programmes.

Agencies willing to participate in follow-up activities

IAWQ and the International Water Supply Association (IWSA) have experience of assisting in the setting up and development of national and regional professional associations. Both organizations will continue to do this and to assist others wishing to participate in similar activities.

14B. MORE PARTNERS – THE ROLE FOR THE PRIVATE SECTOR

The Group Session was based on a discussion paper and plenary presentation by Mr Roger L Brown (Institution of Water and Environmental Management – IWEM).

Basis for action

The private sector offers valuable institutional resources by which the sector can be strengthened, both through large scale *formal* arrangements and through small scale *informal* ad hoc roles in direct response to consumer demand. Matching the Rabat theme: *Making the Most of Resources*, full mobilization and effective use of private sector resources are crucial. Governments need a better understanding and appreciation of the numerous ways in which the private sector can operate, so that they can create the right enabling environment and regulatory controls. The degree of private sector involvement can be selected to match current needs and can increase progressively with experience.

Existing resources/tools

The private sector is able to identify and satisfy many sector needs, but national sector strategies provide a means to facilitate and regulate it in line with overall development policy.

Recommended actions

By the Collaborative Council

The Rabat Group Session recommends that the Council should arrange for and monitor a range of practical case studies on informal private sector activity, focusing on community level entrepreneurs and including both sanitation and water supply. The case studies should lead to guidelines on the best ways of enhancing the beneficial involvement of the informal private sector. A parallel exercise is recommended covering private sector participation in utility operations – from contracting out of management to full privatization. Guidelines should be promoted at any planned workshops, in training and dissemination activities, and through regional and country meetings, activities in member-funded projects, and regional reviews by donors.

The Rabat participants did not suggest a separate WSSCC Working Group on the private sector at this stage, but considered that the topic should remain on the Council's priority list, perhaps through inclusion in the mandate of any Group formed to address Institutional and Management Options. It is also a topic for further study under O&M (Issue 3) and Applied Research (Issue 4)

By Council members, individually or collectively

Sector agencies and ESAs are urged to consider the options for greater private sector involvement in WSS programmes, and to review their approaches to facilitate such involvement where appropriate.

Agencies willing to participate in follow-up activities

IWEM will assist in the promotion of constructive private sector involvement.

SUMMARY OF PLENARY DISCUSSIONS

Progress on Council InItlatives

1. Managing Water resources to meet megacity needs

A Regional Consultation on this subject was held at the Asian Development Bank in Manila on 24-27 August 1993. Case studies prepared by local consultants for the cities of Bangkok, Beijing, Delhi, Dhaka, Jakarta, Karachi, Manila and Seoul were presented and discussed. Overviews were presented on London, Tokyo and Singapore, and there were six theme papers presented by consultants and representatives of development banks. The outcome was a set of guidelines indicating strategies for planning, operation and maintenance of WSS programmes in megacities.

Principal findings include detailed measures for more effective planning and design and for water utility management. The guidelines will serve as a useful tool and checklist for both megacities and many other large cities in Asia in their planned development and management of water resources.

The conference proceedings will be published in book form in mid-1994 and this will represent a comprehensive package of background information and discussions on which the guidelines are based. The full case studies, holding a wealth of information, are available on request from the Asian Development Bank.

The Consultation promoted useful exchange of information among the megacities in Asia and all participants wish to see this continue. In particular, it was apparent that the cities with strong management and development were ready to assist those with relatively weak institutions.

The Asian Development Bank will continue to promote regional cooperation and develop its role as a regional resource centre. In this regard, the bank is soon to publish the first Water Utilities Data Book for the Asia and Pacific Region, providing information on 38 utilities in 25 countries. It was apparent from this consultation that in loan processing more emphasis needs to be given to matters of policy and institutional strengthening.

Small Island nations and their specific needs

To identify the main constraints and priority needs in the Pacific Island countries, a UNDP team has prepared an overall programme outline of the situation in the islands and recommendations for specific actions. A regional technical cooperation programme is now in operation, addressing issues such as:

- development of sector strategies and action plans
- revision of water and sanitation legislation
- consumer education in water conservation
- improvement of rural water supply systems to include hygiene and sanitation measures
- establishment of an International Training Network for the region
- improved solid waste management strategies and procedures
- provision of training and equipment for water resources assessment and water quality monitoring
- · development of activities which incorporate project activities into existing regional institutions

The programme will also coordinate and collaborate with other bilateral and multilateral donors active in the sector in the region.

3. Development of the water supply and sanitation sector in the Lusophone African countries

A detailed report on the second international meeting on this Council-sponsored initiative was distributed at the Rabat Forum. The meeting had heard reports from the five Lusophone African countries and developed a list of follow-up actions covering an institutional framework, human resources development, and information management. The full report is available from the Council Secretariat. In summary:

- A Coordinating Committee for follow-up action will be formed under the auspices of the WSSCC. It will
 include members from the Portuguese speaking countries of Africa, Portugal, Brazil, IRC and supporting
 ESA countries and international organizations.
- The African countries have identified an urgent need for education and training at the basic, intermediate and higher levels.
- Education and training activities will start in 1994, with the first phase aimed at short-term courses (1-4 weeks) and at the training of trainers. Countries will prepare their own programmes and work plans.
- IRC is to carry out information management needs assessments in Cape Verde, Mozambique and Sao Tomé and Principe.
- The main actions to be considered at national level include: sensitization; information strategies and action plans; organizational issues; staff and resources; physical facilities; and finance.

In addition, international agencies will assist in the further development of the *Inventory of Main Sources of Information in Portuguese for the Water Supply and Sanitation Sector*, continue links with REPIDISCA (Red Panamericana de Información en Ingeniería Sanitaria y Ciencias del Ambiente) and CETESB (Companhia de Tecnologia de Saneamento Ambiental) in Brazil, promote use of WASAMS (the WHO/UNICEF Joint Water Supply and Sanitation Monitoring System), through UNICEF and WHO, and help to develop a basic library on water and sanitation, including translation of publications in other languages into Portuguese.

The National School of Public Health (ENSP) and the National Laboratory of Civil Engineering (LNEC) in Portugal are collaborating in support of initiatives by the Lusophone African countries. The Italian government has pledged to support the Lusophone initiative through the Collaborative Council, with a contribution of \$100,000. Other countries indicating support include the Netherlands and Switzerland, and the World Bank, the UNDP/World Bank Programme and the Commonwealth Secretariat have expressed interest. UNDP expects to follow up its previous contributions through the Regional Bureau for Africa. UNICEF and WHO will continue support through WASAMS.

Environment Ministers' Conference

Mr Gerard Wolters of the Netherlands Ministry of Housing, Physical Planning and the Environment announced that his government was planning to convene a Ministerial Conference on Drinking Water Supply and Environmental Sanitation in March 1994 (coinciding with World Water Day). The Conference would be on the subject of follow-up to the UN Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil in June 1992. In particular, the Ministers would be asked to consider action programmes related to Chapter 18 of Agenda 21, concerning the protection of freshwater resources. Invitations were being issued to approximately 70 countries. The WSSCC Executive Secretary had accepted an invitation to join an international steering committee planning the Conference, and it was anticipated that the deliberations in Rabat would be influential in helping to frame recommendations for the Ministers. The outcome of the Ministers' Conference would be transmitted to the May meeting of the UN Commission for Sustainable Development (UNCSD).

Round Table on Water and Health for the underprivileged in urban areas

Mr Jean Nicolazo of the French Ministry of the Environment announced plans to hold a Round Table for experts on the theme of *Water and Health in Urban Areas*. The Round Table would be held in February 1994 in Sofia Antipolis.

Proposals for follow-up activities

During the course of the Rabat Meeting, a Programme Committee met regularly to assess the outcomes of the individual group discussions and plenary sessions, and to develop proposals for Council priorities and follow-up activities. The Programme Committee, which was chaired by Dr Klaus Erbel assisted by Mr Brian Grover, sought to match the recommendations and ambitions of the Group reports with the resources and administrative capacity of the Council, so that in the final plenary participants could focus on an action programme which the Committee considered could be achieved with the resources likely to be available.

Following the reports on the Working Sessions, Dr Erbel presented the Programme Committee's proposals for follow-up activities. The Committee had based its considerations on feelings emanating from all the Rabat discussions that a priority for the future was for the Council to focus on acting as a catalyst for the implementation of the many recommendations, tools and guidelines that had emerged from the work of the seven Working Groups established in Oslo. Other considerations were that the workload of the Secretariat should be in line with its resources, that the Council should only take responsibility for managing activities if they could not be undertaken by others (e.g. where the Council's position as a neutral coordinating body gave it a clear advantage over others), and that the responsibility for mobilizing resources to support future activities should rest as far as possible with the selected coordinator.

Based on these premises, the Programme Committee recommended three distinct elements in the Council's programme for the next two years (the 1 + X + Y formula):

1. The Rabat Action Programme

The Council Chairperson and Secretariat will be responsible for putting into effect those agreed recommendations of the Working Groups which can be acted upon immediately. In this respect, the Chairperson will be able to call on the voluntary assistance of those Council members who will be able to move a particular activity forward. This programme of activities, termed the Rabat Action Programme (RAP) will include ensuring that the tools and guidelines recommended by the groups are made available and promoted to as wide an audience as possible (including, where possible, in several languages). It will also include a major advocacy role for the Council, both through its Chairperson and Secretariat, and through the production of Council-endorsed leaflets and flyers which can be used by others as promotional tools. The Council will co-sponsor workshops, seminars and regional meetings which help to spread its messages wider, and will help where possible with resource mobilization for those countries seeking to implement WSS programmes taking advantage of the new tools and guidelines.

X. Council-sponsored Working Groups

Where the Council is clearly the most appropriate body to continue analysis of a particular priority issue, Working Groups based on the Oslo model will be established with volunteer coordinators, and with administrative support as necessary provided by the Secretariat. The Groups will set their own terms of reference and work programmes, guided by the Secretariat and based on the recommendations of the Rabat meeting. They will be charged with reporting to the next WSSCC Meeting with recommendations of guidelines and tools that can be used to help DC agencies and ESAs to improve sector activities in the area concerned.

Y. Council-mandated activities

Where recommendations from the Rabat groups can be undertaken by individual Council members or groups of members without significant involvement of the Council Secretariat, the Council will mandate a member or group to pursue the activity concerned. The significance of the Council mandate, which may assist some groups in seeking resources for their work, is that the activity concerned must have been identified as a priority at a Council meeting, and that the implementing agency/group undertakes to keep the Council Secretariat informed about progress and to prepare a report for the next Council Meeting.

The agreed programme

The Rabat Meeting endorsed the 1 + X + Y formula, and agreed to establish two new Council-sponsored Working Groups and to mandate the continuation or commencement of a further six activities in the period leading up to the next Council Meeting. Following plenary discussion of the Group Session Reports and the recommendations of the Programme Committee, the agreed programme for the next two years is:

Rabat Action Programme

Opportunities for sector promotion/advocacy identified by the Rabat participants included the Ministers' Conference on Drinking Water and Environmental Sanitation, planned by the Netherlands Government in March 1994, the Population and Development Conference in Cairo and the Social Development Conference in Denmark in 1994, and the Review of the Decade for Women in China in 1995. Council members willing to assist with the Rabat Action Programme are invited to contact the Secretariat, to be on call from the Chairperson to help in those activities where their background or the support of their agency would be of value.

S1 Council Working Group on Promotion of Sanitation

WHO agreed to coordinate the preparation of terms of reference for a new group, after which a Group Coordinator will be chosen. The Group will be asked to put into effect the recommendations of the Rabat Group Session on Promotion of Sanitation (Issue 10), and to consider appropriate recommendations from the discussions on the Role of NGOs and Consumers (Issue 13). It was emphasized in plenary that NGOs can play a very important role in sanitation promotion. The group reinforced the strong link between hygiene education and successful sanitation.

S2 Council Working Group on Institutional and Management Options, Including Water Demand Management and Conservation

UNDP agreed to act as Group Coordinator for a new Group which will respond to the recommendations from Rabat Group Sessions 9, 11 and 14. This Group is also expected to maintain close links with continuing Council-mandated activities on Operation and Maintenance and on Communication and Information. Especially in the urban water supply subsector, lack of demand management is seen as a major constraint to institutional performance and the capacity to undertake adequate maintenance measures. It thus leads to increased water losses, unaccounted-for water, loss of revenue and water wastage. During the plenary discussion, it was emphasized that the informal sector (communities and private enterprise) can be highly influential in WSS issues, and this aspect should be part of the Group's considerations. The special considerations applying to small islands will need to be addressed as a separate issue within the Group. UADE, IWSA and IAWQ offered to help establish a subgroup or network to further proposals related to the enhancement of professional associations in developing countries, and UADE invited the WSSCC to participate in its conference in Dakar, Senegal in January 1994. Mention was also made of a planned Conference on Demand Management, to be held in Chile in 1994 or 1995.

M1 Council-mandated Working Group on Water Pollution Control

WHO has volunteered to coordinate a Working Group which will include the collection and review of case studies and development of tools and guidelines, responding to the recommendations of Rabat Group Session 8. Though the Council Secretariat will not be directly involved in the administration or organization of this activity, it is expected to maintain close liaison in connection with the Council's general advocacy role.

M2 Council-mandated Activity on Services for the Urban Poor

A network of agencies is being established (listed at the end of the report on Group Session 2) to follow up the recommendations of the former Council Working Group on Urbanization. The change of title reflects that Group's focus. The network will support the Council in its implementation of appropriate elements of the Rabat Action Programme, and will respond to the recommendations of Rabat Group Session 2. In plenary discussions, the importance of urban waste management was seen as a key issue for this network to address.

M3 Council-mandated Activity on Operation & Maintenance

WHO will continue its sponsorship of the Working Group on Operation & Maintenance, with Council support through the Rabat Action Programme in advocacy and promotion of the use of existing tools and guidelines. The Working Group has a clear agenda, amplified by the recommendations of Rabat Group Session 3.

M4 Council-mandated Activity on Applied Research

Backed by the WSSCC mandate, WEDC will expand the role of GARNET to include the additional activities listed in the report on Group Session 4. The ad hoc Working Group suggested in that Group Session report will draw up terms of reference for the Council-mandated Activity and help to put together an Advisory Group to assist WEDC in the expansion of GARNET.

M5 Council-mandated Activity on Communication and Information

IRC will continue to progress initiatives already under way and reported in the Group Sessions on Information Management and Information, Education and Communication (IEC). Advocacy and promotion of the use of tools and guidelines will be prime responsibilities of the Rabat Action Programme. There will be close links between this Council-mandated activity and the Rabat Action Programme's efforts to implement recommendations of the former Council Working Group on Country-Level Collaboration (Issue 1).

M6 Council-mandated Activity on Gender Issues

The UNDP/World Bank Programme will continue to coordinate activities of the Gender Issues Working Group, to implement the recommendations and follow-up activities in the Group Session 7 report. INSTRAW will be a lead agency assisting in this effort. The Group will work closely with the Council's Rabat Action Programme, to help promote widespread use of the Gender Issues Sourcebook, and to advocate for gender approaches in all sector programming.

The Council Secretariat

The Council's Executive Secretary, Mr Ranjith Wirasinha, reported on the activities of the Council Secretariat between the Global Forum in Oslo in November 1991 and the Rabat meeting. The Secretariat office was established in WHO and the staff of Executive Secretary, Deputy Executive Secretary (Mr Bryan Locke) and secretarial assistance had been funded by contributions from WHO, UNDP and UNICEF, and from Switzerland, the UK, Germany, Canada, Italy and the Netherlands.

In the two years since Oslo, the Secretariat's principle activities had been related to the work of the seven Working Groups and three Council initiatives and to the organization of the Rabat Forum. Fund raising was a major preoccupation, and the Secretariat appreciated the support provided by the Swiss, German, Canadian, Italian, British and Dutch governments for the Working Groups. Special thanks were due to the Coordinators of the Working Groups and their agencies, and the Rabat Forum expressed the Council's gratitude to:

Mr Brian Grover and the Canadian International Development Agency (Country-level collaboration);

Mr Ivo Imparato and the Italian Ministry of Foreign Affairs (Urbanization);

Mr José Hueb and the World Health Organization (Operation and Maintenance);

Mr Roland Schertenleib and the International Reference Centre for Wastes Disposal (Applied Research);

Mr Han Heijnen and the IRC International Water and Sanitation Centre (Information Management);

Mr Hans van Damme and the IRC International Water and Sanitation Centre (IEC); and

Ms Wendy Wakeman and the UNDP/World Bank Water and Sanitation Programme (Gender Issues).

Support for the initiatives had come from UNDP (Small islands); the Asian Development Bank (Megacities); and the government of Portugal and the IRC International Water and Sanitation Centre (Lusophone initiative).

In addition to the agencies already listed, developing country participation at Rabat was supported by contributions from UNICEF, UNEP, the UNDP/World Bank Water and Sanitation Programme, the governments of Sweden, Norway, the US, Austria, and Australia, and WaterAid (UK). The Secretariat also acknowledged the support of the French government in funding the interpreters at Rabat.

Fund-raising will remain a preoccupation for the Secretariat in implementing the Rabat Action Programme, and donors are asked to look favourably on requests for support in connection with the development and application of the tools recommended by the Oslo Working Groups, and the continued functioning of the Council Secretariat. The excellent work of the Groups has provided the Council with a splendid opportunity to demonstrate some practical benefits from the collaborative process. The Secretariat will produce a work programme for donor support, and the Coordinators of the new Council-sponsored groups will also be seeking funding support.

In addition to the advocacy, promotion and implementation tasks identified in the Group Session Reports, the Council will endeavour to encourage greater involvement of Central and East European countries, and to reflect those countries' needs in its work programme.

Chairperson's closing remarks

The Council Chairperson, Margaret Catley-Carlson, commended and thanked the Oslo Working Groups for their considerable achievements. The Groups' recommendations had made it possible for the Rabat Forum to establish a highly practical Work Programme, based on tools and guidelines which offer real prospects of advancing sector approaches in the coming years. The Council now has a firm obligation to implement the Rabat Action Programme, and will call on individual Council members and their agencies as needed to support particular initiatives. With the help of the continuing Working Groups, the Chairperson and Secretariat will seek to mobilize resources, convert the identified tools into working documents, and organize seminars, workshops and conferences to promote their rapid and widespread use throughout the sector.

The Rabat discussions of new issues had also produced a commendable consensus on new topics on which the Council's collective expertise can be brought to bear. The Chairperson urged Council members to continue with support for the new Working Groups, contacting the appropriate Coordinators to indicate their willingness to participate in Group discussions and activities. The work of the Rabat Working Groups ensured that the next Global Forum should also be able to offer substantive new guidance on the key issues of the day.

Rabat participants are invited to write to the Chairperson and Secretariat with their views on the organization of the Global Forum. The Rabat format had evolved from comments made after Oslo that more time should be devoted to Working Sessions and less to plenary discussion. There had been some reaction in Rabat that

plenary time was too restricted. It would be helpful to have the views of as many participants as possible, to help in the planning of the next Forum.

Mrs Catley-Carlson thanked all the participants for their hard work and for the support she had received during the meeting. She expressed her thanks too to those who had already offered to make themselves available if called on to assist with implementation of the Rabat Action Programme. Others are encouraged to offer their services, and the Chairperson and Secretariat will maintain regular contact with volunteers, to keep them informed of progress.

The Chairperson expressed her own grateful thanks, and those of all the participants to ONEP and the Moroccan government for the magnificent hospitality and the superb organization, which had made the Rabat Forum a very pleasant experience for all concerned, as well as a highly productive business meeting.

The Council endorsed with acclamation, a proposal by Mr Frank Hartvelt (UNDP) that Mrs Catley-Carlson's continuation as Council Chairperson until the end of the 1995 Global Forum should be confirmed.

Next Global Forum

The next meeting will take place in late 1995. The Secretariat is exploring possible venues in Latin America or the Caribbean. Mrs Margaret Catley-Carlson's first term of office (four years) will come to an end at that meeting. A search group has been set up to make recommendations to the Council on the Chairperson to take office from 1995 to 1999.

ANNEX 1: LIST OF PARTICIPANTS

| NAME OF PARTICIPANT | LOCATION | ORGANIZATION/ADDRESS | TEL/FAX | |
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| ABIKO ALEX KENYA | BRAZIL | ESCOLA POLETECNICA UNIVERSITY OF SAO PAULO DEPARTMENT OF CIVIL CONSTRUCTION C.P. 61548 CEP 05498 SAO PAULO | T 55-11 8159322 F 55-11 2114308 | |
| AL QAZWINI F. MERZA | IRAQ | CHIEF, ESTABLISHMENT & WATER SEWERAGE, MINISTRY OF INTERIOR, C/O UNICEF REPRESENTATIVE, PO BOX 10036 KARRADAH BAGHDAD | T F | |
| ALAERTS GUY J.F.R | NETHERLANDS | INTERNATIONAL INSTITUTE FOR INFRASTRUCTURAL, HYDRAULIC & ENVIRONMENTAL ENGINEERING, WESTVEST 7, PO BOX 3015 2601 DA DELFT, THE NETHERLANDS | T 31-15-151766 F 31-15-122921 | |
| ALFARO RAQUEL | CHILE | SANTIAGO WATER & SANITATION COMPANY AVENIDA BULNES 129, SANTIAGO | T 56-2-696 7228 F 56-2-696 3462 | |
| ALPONSI ALPONSO | ITALY | CENTRO DI RICRECA FEBBRA 74 (CE.R.FE) VIA FLAMINIA 160 00198 - ROME | T 39-6-854 0382/9927 F 39-6-854 9413 | |
| ALLI NAZIR | SOUTH AFRICA | AFRICAN NATIONAL CONGRESS P.O BOX 43 MARLBOROUGH, 2063 TRANSVAAL | T 27-11-787 5906 F 27-11-789 4635 | |
| ALVARINHO MANUEL | MOZAMBIQUE | NATIONAL DIRECTORATE FOR WATER & SANITATION PO BOX 1611 MAPUTO | T 258-1-42 14 02 F 258-1-42 14 03 | |
| AL-MUTAWA MUBARAK JASSIM | KUWAIT | MINISTRY OF ELECTRICITY & WATER P.O BOX 12 SAFAT, PIN CODE 13001 | T 965-4815819 F 965-4815817 | |
| AMBROGETTI FRANCESCO | ITALY | CE R.FE VIA SAVOIA 88, 00198 ROME | T 396-854 0382 F 396-854 9413 | |
| AMIN UDDIN AHMAD | BANGLADESH | DEPARTMENT OF PUBLIC HEALTH ENGINEERING MOON MANSION 12/C DILKUSHA COM. AREA, DHAKA | T 880-2-230 269 F 880-2-232 267 | |
| ANDERSSON INGVAR | SWEDEN | SWEDISH INTERNATIONAL DEVELOPMENT AGENCY (SIDA) BIRGER JARLSGATAN 61 S-105 25 STOCKHOLM | T 46-8-728 5100 F 46-8-612 0889 | |
| ANKERSMIT WILLEM | NETHERLANDS | MINISTRY OF FOREIGN AFFAIRS (DGIS) TECHNICAL ADVICE DEPARTMENT BEZUIDENHOUTSEWEG 67 2594 AC THE HAGUE | T 31-70 348 5518 F 31-70 348 5956 | |
| APPLETON BRIAN | UK | CONSULTANT 9 PROSPECT ROAD PRENTON BIRKENHEAD GB-MERSEYSIDE L42 8LE | T 44-51-608 7389 F 44-51-608 6939 | |
| ardon gerrit w. | NETHERLANDS | MINISTRY OF HOUSING PHYSICAL PLANNING AND ENVIRONMENT PO BOX 30945 2500 GX THE HAGUE | T 31-70-317 213 F 31-70-339 4254 | |
| ARLOSOROFF SAUL | ISRAEL | CONSULTANT 4 LIVITAN STR TEL-AVIV 69204 | T 97-2-3 6420989 F 97-2-3 6420943 | |
| ASUNCION TEOFILO | PHILIPPINES | METROPOLITAN WATER AND SEWERAGE SYSTEM KATIPUNAN ROAD BALARA QUEZON CITY, METRO MANILA | T 632-922 2969 F 632-921 2887 | |
| BARANDEMAJE DENIS | BURUNDI | MINISTRY OF NATURAL RESOURCES AND DEVELOPMENT B P. 745 BUJUMBURA | T 257-222203 F 257-223338 | |

| BASSEY JAMES OBONG | NIGERIA | WATER SUPPLY & QUALITY CONTROL, FEDERAL MINISTRY OF WATER RESOURCES, AREA I BLOCK A, GAKI ABUJA | T 234-9-234 2734 F 234-9-234 2509 |
|-------------------------|-----------------------|--|--------------------------------------|
| BAU JOAO | PORTUGAL | UNITURISMO LABORATOIRIO NACIONAL DE ENGENHARIA AV DO BRASIL 101 - 1799 LISBOA | T 351-1-849 4736 F 351-1-847 3832 |
| BEN JELLOUN ZOUHAIR | MOROCCO | DIRECTION DES REGIES ET DES SERVICES CONCEDES MINISTERE DE L'INTERIEUR ET DE L'INFORMATION | T 212-7-76 03 01 F 212-7-76 07 59 |
| BLAXALL JOHN | USA | PROGRAM MANAGER TWUWU, THE UNDP/WORLD BANK WATER & SANITATION PROGRAM, THE WORLD BANK 1818 H STREET NW, WASHINGTON DC 20433 | T 1-202-473 6917 F 1-202-477 0164 |
| BULAJICH BORJANA | DOMINICAN REPUBLIC | INT'L. RES & TRAINING INST. FOR THE ADV. OF WOMEN (INSTRAW) APTO POSTAL 21747 CESAR NICOLAS PENSON, 102-A SANTO DOMINGO | T 1-809-685 2111 F 1-809-685 2117 |
| BOYDELL ROBERT | INDONESIA | THE WORLD BANK - RWSG EAST ASIA PACIFIC C/O THE WORLD BANK P.O BOX 324 JAKARTA | T 62-21-520 0606 F 62-21-511 432 |
| BREWSTER MARCIA M. | USA | WATER RESOURCES BRANCH, DEPT. OF DEV. SUPPORT AND MANAGEMENT SERVICE, UNITED NATIONS, ONE UNITED NATIONS PLAZA NEW YORK, NY 10017 | T 1-212-963 8590 F 1-212-963 1270 |
| BROWN ROGER | UK | THE INSTITUTION OF WATER & ENVIRONMENTAL MANAGEMENT (IWEM), 15 JOHN STREET, LONDON WC1N 2EB | T 44-737 774155 F 44-737 772767 |
| BUDIMAN ARIF | INDONESIA | MINISTRY OF PUBLIC WORKS J1 RADEN PATAH I/1 7th FLOOR - KEBAORAN BARU JAKARTA SELATAN | T 62 21 710724 F 62 21 716123 |
| CALVO LIC ROMMEL | COSTA RICA | CAPRE APARTADO POSTAL 404-2010 - ZAPOTE - SAN JOSE | T 506-224456 F 506-552771 |
| CARDOSO JOAO GOMES | GUINEA BISSAU | SECRETARY OF STATE, MINISTRY OF NATURAL RESOURCES, BP 399 BISSAU | T 245-213 577 F 245-221 050 |
| CARROLL DENNIS | USA | USAID COMMUNICABLE DISEASES DIVISION ROOM 1234 SA-18 WASHINGTON DC 20523 | T 1-703-875 4480 F 1-703-875 4686 |
| CATAFAGO SELIM | LEBANON | MINISTRY OF HYDRAULIC RES. C/O MR H. VAN DER KLOET-UNDP-PO BOX 11-3216 BEIRUT | T F 359-9-522 948 |
| CATLEY-CARLSON MARGARET | USA | CHAIRPERSON, WATER SUPPLY & SANITATION COLLABORATIVE COUNCIL (WSSCC) AND PRESIDENT, THE POPULATION COUNCIL 1 DAG HAMMARSKJOLD PLAZA, NEW YORK NY 10017 | T 1-212-339 0500 F 1-212-755 6052 |
| CHAOUNI MOHAMED | MOROCCO | ADMINISTRATION DE L'HYDRAULIQUE, DIRECTION DE LA RECHERCHE ET DE LA PLANIFICATION DES EAUX, RABAT | T 212-7-77 87 27 F 212-7-77 60 81 |
| CHEN FENGSHU | CHINA | DIVISION CHIEF AND SENIOR ENGINEER FOR WATER SUPPLY DEPARTMENT, MINISTRY FOR WATER RES. 1 LANE 2, BAIGUANG RD, BEIJING 100761 | T 86-1-326 2666 F 86-1-326 0198 |
| CHEN LEI | CHINA | CHINA IRRIGATION & DRAINAGE CORPORATION MINISTRY FOR WATER RESOURCES BEIJING PR CHINA | T 86-1-3269241 F 86-1-3269244 |
| COLLETT DAVID | UK | WATER AID UNITED KINGDOM, ONE QUEEN ANNE'S GATE GB LONDON SWIH 9BT | T 44-71-233 4800 F 44-71-233 3161 |
| COTTON ANDREW | UK | WATER ENGINEERING AND DEVELOPMENT CENTRE LOUGHBOROUGH UNIVERSITY LEICESTERSHIRE LE11 3TU | T 44-509-222885 F 44-509-211079 |

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| COULOMB RENE | FRANCE | LYONNAISE DES EAUX LED-72 AVENUE DE LA LIBERTE 92022 NANTERRE | T 33-1-46 95 50 00 F 33-1-46 95 51 91 |
|---------------------------|-------------|--|--|
| DABBAGH TAYSIR | KUWAIT | ENG. ADVISER, KUWAIT FUND FOR ARAB ECON. DEV. PO BOX 2921 SAFAT 13030 | T 965-246 8800 F 965-241 9063 |
| DARHNAJ ABDELKADER | MOROCCO | UFINER/COFRETH 20 BOULEVARD RACHIDI CASABLANCA BP 20000 | T 212-2-224107 F 212-2-293152 |
| DE GALA MILA | USA | UN DEVELOPMENT PROGRAMME (DGIP) ONE UN PLAZA ROOM FF 1268 NEW YORK 10017 | T 1-212-906 6425 F 1-212-906 6350 |
| DE ROOY CAREL | USA | SR. PROJECT OFFICER, UN CHILDREN'S FUND (UNICEF) THREE UNITED NATIONS PLAZA NEW YORK, NY 10017 | T 1-212-702 7280 F 1-212-702 7150 |
| DHAMASIRI CHUANPIT | THAILAND | METROPOLITAN WATERWORKS AUTHORITY OF THAILAND 18/137 PRACHACHUOM ROAD DON MUAN DISTRICT BANGKOK 10210 | T 66-2-503 9476 F 66-2-503 9463 |
| DI MELLILLI CATALANO | ITALY | MINISTER, DIREZIONE GENERAL PER LA COOP. ALLO SVILUPPO, MINISTERI DEGLI AFFARI ESTERI VIA S. CONTARINI 25 I-00194 ROME | T 39-6-369 14126 F 39-6-369 14193 |
| DJERRARI MOHAMED FOUAD | MOROCCO | DIRECTOR-GENERAL RED, 6 RUE AL HOCEIMA, RABAT B.P. 161 | T 212-7-73 36 07 F 212-7-72 36 34 |
| DOYLE BRENDAN | USA | UN CHILDREN'S FUND, (UNICEF) THREE UNITED NATIONS PLAZA, NEW YORK NY 10017 | T 1-212-702 7276 F 1-212-702 7150 |
| ECHIHABI EL HOUCINE | MOROCCO | NATIONAL OFFICE OF POTABLE WATER (ONEP) 28 AV OQBA, AGDAL - RABAT | T 212-7-75 39 40 F 212-7-75 23 77 |
| EL DEEB SAAD EL DINE | EGYPT | CHAIRMAN, GENERAL ORGANIZATION FOR GREATER CAIRO WATER 42 RAMAIS STREET CAIRO | T 20-2-574 8284 F 20-2-356 3020 |
| EL KATSHA SAMIHA | EGYPT | ANTHROPOLOGIST, AMERICAN UNIVERSITY SOCIAL RESEARCH CENTER 113 KASR EL-EIRI STREET CAIRO | T 20-2-354 2965 F 20-2-355 7565 |
| EL MGHARI TABIB | MOROCCO | NATIONAL OFFICE OF POTABLE WATER (ONEP) BP POSTAL RABAT CHELLAH RABAT - MOROCCO | T 212-7-75 96 00 F 212-7-75 23 77 |
| ELHASSAN BASHIR MOHD | SUDAN | FACULTY OF PUBLIC AND ENVIRONMENTAL HEALTH P.O.BOX 205 KHARTOUM | T 249-11-72690 F |
| ENDALAMAW MELESSE | ETHIOPIA | MINISTRY OF NATURAL RESOURCES DEVELOPMENT AND ENVIRONMENTAL PROTECTION, ADDIS ABABA | T 251-1-186111 F 251-1-611254 |
| ERBEL KLAUS | GERMANY | GERMAN AGENCY FOR TECHNICAL COOPERATION (GTZ) DAG-HAMMARSKJOELD-WEG 1 POSTFACH 5180 ESCHBORN 65760 | T 49-6196-791265 F 49-6196-796105 |
| ESCALONA LUIS CARLOS | PANAMA | C/O RESIDENT REPRESENTATIVE, UNDP, APPRTADO 63 14 PANAMA 5 | T 507-27 53 59 F 507-27 54 78 |
| ESPARZA ANTONIO FERNANDEZ | MEXICO | NATIONAL WATER COMPANY CDA J. SANCHEZ AZCONA N° 1723 COL. DEL VALLE C.P. 03100 | T 52-5-524 52 97 F 52-5-520 05 27 |
| EVGENI STRUAK | SWITZERLAND | USG/PDSD LEAGUE OF THE RED CROSS P.O. BOX 372 1211 GENEVA 19 | T 41-22-730 42 22 F 41-22-733 03 95 |
| FARLEY MALCOLM | UK | WATER RESEARCH CENTRE FRANKLAND ROAD BLAGROVE SWINDON SNS 8YF | T 44-793-511711 F 44-793-511712 |
| FAURES JEAN-MARC | ITALY | FOOD & AGRICULTURE ORGANIZATION (FAO/LWDD) ROOM B-725 BIS VIALE DELLE TERME DI CARACALLA 00100 ROME | T 39-6-57973949 F 39-6-57973152 |

| FILALI BABA ABDELALI | MOROCCO | DIRECTORATE GENERAL, NATIONAL OFFICE OF POTABLE WATER (ONEP), B.P. CHELLAH, RABAT | T 212-7-72 10 30 F 212-7-73 13 55 |
|----------------------|-------------------|--|--------------------------------------|
| POKELADEH FAWAZ | MOROCCO | RESIDENT REPRESENTATIVE UN DEVELOPMENT PROGRAMME, CASIER ONU RABAT CHELLAH | T 212-7-76 03 46 F 212-7-76 35 66 |
| PORDE LESTER | TRINIDAD & TOBAGO | CHIEF ENGINEER-WASTEWATER WATER & SEWERAGE AUTHORITY, 19 BATES TRACE SANTA MARGARITA ST. AUGUSTINE | T 1-809-627 8278 F 1-809-627 8379 |
| GAMAL-ELDINE | DJIBOUTI | HYDROGEOLOGIST, O.N.E.D., B.P. 3027 | T 253-356438 F 253-354423/356641 |
| GARN HARVEY MIKE | USA | ECONOMIC ADVISER (CONSULTANT) TWUWS THE WORLD BANK 1818 H SREET NW WASHINGTON DC 20433 | T 1-202-473 7515 F 1-202-477 0543 |
| GAVIDIA JORGE | KENYA | UN CENTRE FOR HUMAN SETTLEMENTS (UNCHS) PO BOX 30030 NAIROBI | T 254-2-62 3051 F 254-2-22 6473 |
| GLEDITSCH MONA | NORWAY | HEALTH DIVISION, NORWEGIAN AGENCY FOR INTERNATIONAL DEVELOPMENT (NORAD), PO BOX 8034 N-0030 OSLO 1 | T 47-22-31 4400 F 47-22-31 4402 |
| GONDWE HILDA | TANZANIA | SENIOR PLANNER, THE PLANNING COMMISSION MINISTRY FOR WATER, ENERGY & MINERALS P.O. BOX 9242 DAR ES-SALAAM | T 255-51-29411-4 F |
| GORDON DOROTHY | SWITZERLAND | UN VOLUNTEERS PALAIS DES NATIONS CH-1211 GENEVA 10 | T 41-22-788 2455 F 41-22-788 2501 |
| GOURISANKAR GHOSH | USA | UN CHILDREN'S FUND, THREE UNITED NATIONS PLAZA NEW YORK NY 10017 | T 1-212-702 7277 F 1-212-702 7150 |
| GROVER BRIAN | CANADA | DIRECTOR, WSS SECTOR, PROF. SERVICES BRANCH CANADIAN INTERNATIONAL DEV. AGENCY (CIDA) 200 PROMENADE DE PORTAGE HULL QUEBEC | T 1-819-997 1426 F 1-819-997 4762 |
| НАДЛ MOHAMED ALI | COMOROS | CHIEF OF WATER DEPARTMENT, DIRECTION OF ENERGY AND WATER RESOURCES PO BOX 131 MORONI | T 269-731521 F |
| HAFNER CRAIG | USA | DEPUTY PROJECT DIRECT. WASH/USAID OPERATIONS CENTRE, 1611 N. KENT STREET ROOM 1002 ARLINGTON VA 22209 | T 1-703-243 8200 F 1-703-243 9004 |
| HAJJI AHMED | MOROCCO | DIRECTEUR DIRECTION DE LA PLANIFICATION ET DU DEVELOPPEMENT ONEP 28 RUE OQBA AGDAL - RABAT | T 212-7-77 54 03 F 212-7-77 54 08 |
| HALL STANLEY | ANGOLA | UN CHILDREN'S FUND (UNICEF) AREA OFFICE FOR ANGOLA AND S.TOME AND PRINCIPE P.O.BOX 2707 LUANDA | T 224-2-332348/95 F 224-2-337037 |
| HARDWARE THORANT | JAMAICA | MANAGING DIRECTOR, UNDERGROUND WATER AUTHORITY 39-43 BARBADOS AVENUE - KINGSTON | T 1-809-926 1480 F 1-809-926 4670 |
| HARTVELT FRANK | USA | DEPUTY DIRECTOR DGIP, UNITED NATIONS DEVELOPMENT PROGRAMME, ONE UNITED NATIONS PLAZA NEW YORK NY 10017 | T 1-212-906 5858 F 1-212-906 6350 |
| HASAN ARIF | PAKISTAN | ORGANI PILOT PROJECT 37 D MOHAMMAD ALI SOCIETY KARACHI 75350 | T 92-71-233 4800 F 92-71-233 3160 |
| HELMER RICHARD | SWITZERLAND | DIVISION OF ENVIRONMENTAL HEALTH, WORLD HEALTH ORGANIZATION 20 AVENUE APPIA CH-1211 GENEVA 27 | T 41-22-791 3761 F 41-22-791 0816 |

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| HEDNEN HAN A. | NETHERLANDS | SR.INF OFFICER, IRC INTERNATIONAL WATER & SANITATION CENTRE P.O BOX 93190 NL-2509 AD THE HAGUE | T 31-70-331 4133 F 31-70-381 4034 |
| HUEB JOSE AUGUSTO | SWITZERLAND | COMMUNITY WATER SUPPLY & SANITATION, WORLD HEALTH ORGANIZATION 20 AVENUE APPIA CH-1211, GENEVA 27 | T 41-22-791 3553 F 41-22-791 0746 |
| ICARD PIERRE | FRANCE | MINISTERE DE LA COOPERATION 20 RUE MONSIEUR 75700 - PARIS | T 33-1-478 30127 F 33-1-478 30130 |
| IMPARATO IVO | ITALY | DGCS,UFFICE XV,SEZ VI DIREZIONE GENR PER COOP ALLO SVILUPPO MINISTERO DEGLI AFFARI ESTERI VIA S.CONTARINI 25 I 00194 ROME | T 39-6-369 14126 F 39-6-324 0585 |
| JACKSON BRIAN | UK | OVERSEAS DEVELOPMENT ADMINISTRATION 94 VICTORIA STREET, GB-LONDON SWIE 5JL | T 44-71-917 0394 F 44-71-917 0072 |
| JANSSENS JAN G. | BELGIUM | IWSA/TECHWARE TECHNOLOGY POR WATER RESOURCES C/O BIWM 70 RUE AUX LAINES/WOLSTRAAT 70, 1000 BRUSSELS | T 32-2-518 8893 F 32-2-502 6735 |
| JAOUHARI NOURREDINE | MOROCCO | NATIONAL OFFICE OF POTABLE WATER (ONEP) 28 AV. OQBA-AGDAL, RABAT | T 212-7-775404 F 212-7-775408 |
| JAOUI ABDELHAK | MOROCCO | ONEP/IGI 28 AV. OQBA, AGDAL RABAT | T 212-7-75 88 86 F 212-7-75 88 86 |
| JENSEN ERIK SJOERSLEV | DENMARK | DANISH INTERNATIONAL DEVELOPMENT AGENCY MINISTRY OF FOREIGN AFFAIRS ASIATISK PLADS 2 DK 1448 COPENHAGEN K | T 45-339 20000 F 45-339 20790 |
| JOST RAYMOND | CANADA | INTERNATIONAL SECRETARIAT FOR WATER 48 RUE LE ROYER OUEST MONTREAL QUEBEC H2Y 1W7 | T 1-514-849 4262 F 1-514-849 2822 |
| KAHANGIRE PATRICK | UGANDA | WATER DEVELOPMENT DEPARTMENT PO BOX 20026 KAMPALA | T F 256-41-22 1678/0560 |
| KIWASILA HILDA | TANZANIA | INSTITUTE OF RESOURCE ASSESSMENT, UNIVERSITY OF DAR-ES-SALAAM, P.O.BOX 35131 | T 255-51-49145 F |
| KOLSKY PETER J. | UK | LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE KEPPEL STREET GB LONDON WC1E 7HT | T 44-71-927 2211 F 44-71-436 4230 |
| KÖNIG SIEGFRIED | GERMANY | KREDITANSTALT FUER WIEDERAUFBAU (KfW) KARLSTRASSE 35 - 61 231 BAD NAUHEIM PALMENGARTENSTRASSE 5-9, FRANKFURT 60325 | T 49-6032 2981 F 49-6032 2981 |
| LAHLOU ABDERRAFII | MOROCCO | ONEP BP RABAT CHELLAH - RABAT | T 212-7-72 74 31 F 212-7-73 17 76 |
| LATIFI ABDUL GHAPOUR | AFGHANISTAN | DEPUTY MINISTER, MINISTRY OF REHABILITATION & RURAL DEVELOPMENT, DARUL AMAN, KABUL | T 92-51211 55 F c/o UNICEF |
| LE MASSON HUGUES | FRANCE | CAISSE FRANCAISE DE DEVELOPPEMENT 35-37 RUE BOISSY D'ANGLAS F-75379 PARIS CEDEX 08 | T 33-1-40 06 3341 F 33-1-42 66 34 44 |
| LEKE MARIN | IVORY COAST | BANQUE AFRICAINE DE DEVELOPPEMENT 01 B.P. 1387 ABIDJAN 01 | T 225-20 49 50 F 225-20 49 07 |
| LERNER JAIME | BRAZIL | INTITUTO JAIME LERNER C/O DUDA / Mª ELIANE CURITIBA | T 55-41-252 1055 F 55-41-252 7621 |
| LIZARDI BECERRA MANOEL | MEXICO | CESPT C. ANTONIO SALVATIERRA 53 COL. RUIZ CORTINEZ C P. 22350 TIJUANA B C. | T 52-66-831725 F 52-66-828194 |

| LOCKE BRYAN | SWITZERLAND | DEPUTY TO THE EXECUTIVE SECRETARY, WATER SUPPLY & SANITATION COLLABORATIVE COUNCIL (WSSCC) C/O WORLD HEALTH ORGANIZATION 20 AVENUE APPIA CH-1211 GENEVA 27 | T 41-22-791 3549 F 41-22-788 0054 |
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| LOTZ E. RAINER | GERMANY | FEDERAL MINISTRY OF ECONOMIC COOP. (BMZ) 53 113 BONN, FRIEDRICH EBERT ALLEE 114 - 116 | T 49-228-535 499 F 49-228-535 202 |
| LOW CHEE PAR | MALAYSIA | DEPUTY DIRECTOR, WATER SUPPLY BRANCH PUBLIC WORK DEPARTMENT, JALAN SULTAN SALAHUDDIN 50582 KUALA LUMPUR | T 60-3-440 7302 F 60-3-293 1920 |
| LOWES PETER | USA | CONSULTANT UNDP 1 UN PLAZA NEW YORK N.Y 10017 | T 1-212-906 5000 F 1-212-906 6350 |
| LUZATI ARBEN | ALBANIA | INSTITUTE OF HYGIENE & EPIDEMIOLOGY - TIRANA | T 355-42 27 933 F 355-42 27 933 |
| MAGARA YASUMOTO | JAPAN | DIRECTOR DEP. OF WATER SUPPLY ENG. INSTITUTE OF PUBLIC HEALTH, MINST. OF HEALTH & WELFARE 4-6-1 SHIROKANEDAI MINATO-KU TOKYO 108 | T 81-3-3441 7111 F 81-3-3446 7161 |
| MALOMO SIYAN | UK | WATER AND MINERAL RESOURCES PROGRAMME COMMON- WEALTH SCIENCE COUNCIL MARLBOROUGH HOUSE PALL MALL LONDON SWIY 5HX | T 44-71-474 6211 F 44-71-930 0827 |
| MANCEL JOEL | FRANCE | OFFICE INTERNATIONAL DE L'EAU BP 075-06902 SOPHIA ANTIPOLIS CEDEX | T 33-92-94 58 00 F 33-93-65 44 02 |
| MARION-LANDAIS LIONEL | DOMINICAN REPUBLIC | PROG. UNIT CORP.DES ACUEDUCTOS Y ALCANTARIL- LADO DE SANTO DOMINGO EUCLIDES MORILLO Nº65 APART.1346 SANTO DOMINGO | T 1-809-567 6312 F 1-809-541 7600 |
| MARQUEZ HUGO ALBERTO | ARGENTINA | FEDERAL COUNCIL FOR POTABLE WATER & SANITATION (COFAPYS), MORENO 2038 (1094) BUENOS AIRES | T 54-1-951 3743/2179 F 54-1-952 6728 |
| MARVILLE CHARLES | BARBADOS | ENGINEER BARBADOS WATER AUTHORITY, THE PINE, ST MICHAEL | T 1-809-427 3990 F 1-809-426 4507 |
| MATUMBIKE CHRISTOPHER | ZIMBABWE | RURAL & URBAN DIVISION, MINISTRY OF LOCAL GOVERNMENT, PO BOX 7706 CAUSEWAY HARARE | T 263-4-790 601 F 263-4-791 490 |
| MEDINA NELSON | NICARAGUA | DIRECTOR OPERATION AND MAINTENANCE INSTITUTO NICARAGUENSE DE ACUEDUTOS Y ALCANTARILLADOS MANAGUA | T 505-2-667910 F 505-2-667911 |
| MILBURN ANTHONY | UK | INTERNATIONAL ASSOCIATION ON WATER QUALITY I QUEEN ANNE'S GATE GB-LONDON SWIH 9BT | T 44-71-222 3848 F 44-71-233 1197 |
| MOEGEDAL SIGRUN | NORWAY | DIRECTOR DIAKOHNI. INTERNATIONAL SENTER BOKS 23 VINDERN 0369 OSLO 3 | T 47-22-451 818 F 47-22-451 810 |
| MULIPUKWA MATHEW | ZAMBIA | DEPARTMENT OF WATER AFFAIRS, MINISTRY OF WATER, LANDS AND NATURAL RESOURCES, P.O.BOX 50288, LUSAKA | T 260-1-215251 F |
| MWANGOLA MARGARET | KENYA | EXECUTIVE DIRECTOR KWAHO PO BOX 40128 NAIROBI | T 254-2-506 941 F 254-2-543 265 |
| McGARRY MICHAEL | CANADA | COWATER INTERNATIONAL INC, 304-411 ROOSEVELT AVENUE, OTTAWA, ONTARIO K2A 3X9 | T 1-613-722 6434 F 1-613-722 5893 |
| McINTOSH ARTHUR | PHILIPPINES | SR PROJECT ENGINEER, ASIAN DEVELOPMENT BANK PO BOX 789, 1099 MANILA | T 632-632 6839 F 632-632 6816 |
| McNEILL DESMOND | NORWAY | DIRECTOR, CENTRE FOR ENVIRONMENT & DEVELOPMENT BOX 0316 BLINDERN OSLO 0317 | T 47-22-85 48 14 F 47-22-85 48 20 |

| Mr BENNOUNA | MOROCCO | DIRECTEUR, MINISTERE DE LA SANTE PUBLIQUE c/o MR HAJI, ONEP 28 AV. OQBA, AGDAL - RABAT | T 212-7-72 16 33 F 212-7-77 20 14 | |
|------------------------|---------------------|---|--|--|
| NETO FELIX MATHIAS | ANGOLA | NATIONAL DIRECTOR FOR WATER, C/O UN CHILDREN'S FUND, P.O BOX 3895, LUANDA | T 244-2-390 385 F 244-2-334 037 | |
| NEWMAN ALVIN | EGYPT | USAID 8 KAMAL EL DINE SALAH ST. CAIRO | T 20-2-355 7371 F 20-2-357 2233 | |
| NICOLAZO JEAN LOIC | FRANCE | MINISTRY OF ENVIRONMENT 14 BOULEVARD GENERAL LECLERC - PARIS | T 33-1-40 81 33 99 F 33-1-40 81 83 89 | |
| N'DRI KOFFI | IVORY COAST | UNION AFRICAINE DISTRIBUTEURS D'EAU 01, BP 1843- ABIDJAN 01 | T 225-23 30 21 F 225-24 20 33/61 57 | |
| OKEKE EBELE O. | NIGERIA | FEDERAL MINISTRY OF WATER RESOURCES OLD SECRETARIAT BLOCK A, AREA 1, GARKI-ABUJA | T 234-9-2342733 F 234-9-2342509 | |
| OTIWANI UKATHA | PAPUA NEW GUINEA | THE WATER BOARD P.O. BOX 2779 BOROKO N.C.D | T 675-256313 F 675-256298 | |
| PATHAK BINDESHWAR | INDIA | CHAIRMAN, SULABH INT. SULABH BHAWAN MAHAVIR EN CLAVE PALAM DABRI ROAD, NEW DELHI-110045 | T 91-11-555 3823 F 91-11-4629275 | |
| PETER PAUL | SWITZERLAND | SWISS DEVELOPMENT COOPERATION, FEDERAL DEPARTMENT OF FOREIGN AFFAIRS CH-3003 BERN | T 41-31-322 36 49 F 41-31-322 47 67 | |
| PIKE TERRY | UK | OVERSEAS DEVELOPMENT ADMINISTRATION 94 VICTORIA STREET GB-LONDON SW1E 5JL | T 44-71-917 0116 F 44-71-917 0425 | |
| POTIE LOUIS | FRANCE | INSTITUT MEDIT. DE L'EAU (IME), PALAIS DE PHARO 58 BOULEVARD CHARLES LIVON 13007 MARSEILLE | T 33-91-552 945 F 33-91-553 974 | |
| PYAKURAL DINESH C. | NEPAL | DEPUTY DIRECTOR GENERAL, WATER SUPPLY, SEWERAGE & SANITATION, CHA 2/203 GAIRIDHARA, KATHMANDU | T 977-1-413744 F 977-1-419802 | |
| QUTEISHAT A. KOUSSAI | JORDAN | SECRETARY GENERAL, WATER AUTHORITY P.O.BOX 2412 AMMAN | T 962-6-820101 F 962-6-820143 | |
| RAFIK ABDERRAHMANE | MOROCCO | DEPUTY ENGINEER, RED RED TEMARA, AV. HASSAN II, TEMARA | T 212-7-74 01 07 F 212-7-74 03 25 | |
| RAKI KHADUA | MOROCCO | AMS. UN CHILDREN'S FUND 46B, NAHDA II, B.P. 511 RABAT, CHELLAH | T 212-7-75 90 24 F 212-7-75 90 24 | |
| RAMANANTSOA RICHARD | MADAGASCAR | CHEF DU SERVICE DE L'ASSAINISSEMENT & DU GENIE SANITAIRE, MINISTERE DE LA SANTE SAGS B.P.18 AMBOHIMANARINA ANTANANARIVO 101 | T 261-2-430 15 F | |
| RAMOS LILIA | PHILIPPINES | EXECUTIVE OFFICER, APPROTECH ASIA, PSDC BLDG REAL COM. MAQALLANES INTRAMUROS, MANILA | T 632-530 0786 F 632-530 0786 | |
| RASHEED MOHAMED | REP. OF MALDIVES | DIRECTOR MALDIVES WATER AND SANITATION AUTHORITY MARINE DRIVE MALE 20-02 | T 960-325 660 F | |
| RASMUSSEN ANDERS SERUP | DENMARK | DANISH INTERNATIONAL DEVELOPMENT AGENCY MINISTRY OF FOREIGN AFFAIRS ASIATISK PLADS 2 DK 1448 COPENHAGEN K | T 45-339 20205 F 45-339 20790 | |
| REGRAGUI MOHAMED | MOROCCO | NATIONAL OFFICE OF POTABLE WATER (ONEP) 28 AV. OQBA, AGDAL - RABAT | T 212-7-75 84 38 F 212-7-75 31 28 | |
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| RIBADENEIRA PATRICIO | ECUADOR | ANDESAPA CASILLA POSTAL 1370 AV. MARIANA DE JESUS Y ALEMANIA, QUITO | T 593-2-507 873 F 593-2-501 388 |
|-------------------------|-------------|--|---|
| RICARDO VELASQUEZ LAZO | HONDURAS | NATIONAL WATER & SANITATION AGENCY c/o UNICEF REPRESENTATIVE APARTO POSTAL 2850 TEGUCIGALPA | T 504-311 612/13/14/15 F 504-325 884 |
| RITTER KLAUS | GERMANY | GERMAN CENTRE FOR INTERNATIONAL TRAINING IN WATER & WASTE MANAGEMENT (DZWA) AM LISTHOLZE 78 D 30177 HANNOVER | T 49-511-90992 11 F 49-511-90992 69 |
| ROGBEER GOWREESUNKUR | MAURITIUS | DEPUTY GENERAL MANAGER, CENTRAL WATER AUTHORITY, ST. PAUL, PHOENIX | T 230-686 5071 F 230-686 6264 |
| ROTIVAL ALEXANDER | SWITZERLAND | CONSULTANT "PETITE HERMITAGE" ROLLE CH 1180 VAUD | T 41-21-826 0067 F 41-21-826 0067 |
| ROY BUNKER SANJIT | INDIA | DIRECTOR, SOCIAL WORK RESEARCH CENTRE TILONIA 305-816 MADANGANI DIST AJMER RAJASTHAN | T 91-1-463 3016 F 91-1-414 0909 |
| SACKEY PETER | GHANA | DIRECTOR, RURAL WATER DEPARTMENT GHANA WATER & SEWERAGE CORPORATION P.O BOX M 194 ACCRA | T 223-21-667 534 F |
| SAIYID MUSHARRAF HUSAIN | BANGLADESH | MINISTRY OF LGRD C/O RWSG WORLD BANK HOUSE, NO.28 - ROAD NO 11 GULSHAN GPO 97, DHAKA | T 880-2-605239 F 880-2-883348 |
| SCHERTENLEIB ROLAND | SWITZERLAND | INTERNATIONAL REFERENCE CENTRE FOR WASTES DISPOSAL UEBERLANDSTRASSE 133 CH-8600 DUEBENDORF | T 41-1-823 5511 F 41-1-823 5028 |
| SEHMI NAGINDER S. | SWITZERLAND | WORLD METEOROLOGICAL ORGANIZATION CASE POSTALE 2300 CH 1211 GENEVA 2 | T 41-22-730 8358 F 41-22-734 2326 |
| SEN INDRANI | INDIA | JOINT SECRETARY, MINISTRY OF URBAN DEVELOPMENT NIRMAN BHAVAN NEW DELHI 110011 | T 91-11-3012309 F 91-11-3014451 |
| SIDIBE MAHAMADOU | MALI | DIRECTION NATIONALE DE L'HYDRAULIQUE ET DE L'ENERGIE BP. 66 BAMAKO | T 223-22 48 77 F 223-22 41 24 |
| SIMPSON ALFRED | FUI | DIRECTOR, MINERAL DEVELOPMENT AND MINING MINISTRY OF MINERAL RESOURCES DEVELOPMENT SUVA | T 679-38 1611 F 679-37 0039 |
| SIMPSON-HEBERT MAYLING | SWITZERLAND | COMMUNITY WATER SUPPLY AND SANITATION, WORLD HEALTH ORGANIZATION 20 AVENUE APPIA CH-1211 GENEVA 27 | T 41-22-791 3531 F 41-22-788 4226 |
| SIVANANDAN P.K | INDIA | JOINT SECRETARY & MISSION DIRECTOR, MINISTRY OF RURAL DEVELOPMENT R.N.O. 249 KRISHI BHAVAN NEW DELHI | T 91-11-436 1043 F 91-11-436 4113 |
| SOEDJARWO ANTON | INDONESIA | HEAD, YAYASAN DIAN DESA, JAKARTA | T 62-21-233 4 800 F 62-21-233 3 161 |
| TALBOT RUPERT | INDIA | UNITED NATIONS CHILDREN'S FUND 73 LODI ESTATE NEW DELHI- 110 003 | T 91-11-690401 F 91-11-619722 |
| TARIB JAMAL | MOROCCO | UN CHILDREN'S FUND (UNICEF) 8 CHARIA MARRAKECH, RABAT | T 212-7-760391 F 212-7-762106 |
| THIOLERON ELISABETH | FRANCE | ORGANISATION DE COOPERATION ET DEVELOPPEMENT ECONOMIQUE 2 RUE ANDRE PASCAL 75775 PARIS CEDEX 16 | T 33-1-4524 1979 F 33-1-4524 1623 |

| THOMPSON JUDITH | GHANA | CO-ORDINATOR, INTEGRATED SOCIAL DEVELOPMENT CENTER (ISODEC) P.O BOX 16185, ACCRA AIRPORT | T 233-21-224 069 F 223-21-773 856 |
|-----------------------|--------------|--|---|
| THORPE BRIAN | UK | INTERNATIONAL WATER SUPPLY ASSOCIATION, ONE QUEEN ANNE'S GATE GB-LONDON SWIH 9BT | T 44-71-957 4567 F 44-71-222 7243 |
| TOUPE ANDRE | BENIN | DIRECTEUR HYDRAULIQUE BP 385 COTONOU | T 229-313487 F 229-313546 |
| TRIEBEL CLAUS | SOUTH AFRICA | MANAGER, WATER RESOURCES DEPT. OF WATER AFFAIR AND FORESTRY, PRIVATE BAG X 313 PRETORIA 0001 | T 27-12-299 2206 F 27-12-326 1780 |
| VAN DAMME HANS | NETHERLANDS | DIRECTOR, INTERNATIONAL WATER AND SANITATION CENTER PO BOX 93190 NL-2509 AD THE HAGUE | T 31-70-331 4133 F 31-70-381 4034 |
| VASCONEZ MARIO S. | ECUADOR | COORDINATOR, AGUA Y SANEAMIENTO, REDES CENTRO DE INV. CIUDAD MENES 265 Y LA GASCA C.P 17 08 8311 QUITO | T 593-2-234705 F 593-2-500322/402362 |
| VICENTE JOSE | ANGOLA | TECHNICIEN SUPERIEUR EN GENIE SANITAIRE L'ASSOCIATION ANGOLAISE DE L'ENVIRONNEMENT 10 AV. DE DEZEMBRO NO.67, 1°ANDAR CX POSTAL 1201, LUANDA | T 244-2-339252 F 244-2-393445 |
| WAGNER MICHEL | FRANCE | DIRECTEUR UN/10 MINISTERE DES AFFAIRES ETRANGERES 35 QUAI D'ORSAY 75007 PARIS CEDEX 16 | T 33-1-47 53 5477 F 33-1-47 53 5558 |
| WAKEMAN WENDY | USA | UNDP/ WB DEVELOPMENT PROGRAMME (PROWWESS) THE WORLD BANK 1818 H STREET, NW, WASHINGTON 20433 | T 1-202-473 3994 F 1-202-477 0164 |
| WARNER DENNIS B. | SWITZERLAND | MANAGER, COMMUNITY WATER SUPPLY & SANITATION WORLD HEALTH ORGANIZATION 20 AVENUE APPIA CH-1211 GENEVA 27 | T 41-22-791 3546 F 41-22-788 4226 |
| WATHNE MAGNE | USA | UN DEVELOPMENT PROGRAMME (UNDP) ONE UNITED NATIONS PLAZA NEW YORK N.Y 10017 | T 1-212-906 5767 F 1-212-906 5947 |
| WATTERS GREGOR | SWITZERLAND | COMMUNITY WATER SUPPLY & SANITATION, WORLD HEALTH ORGANIZATION 20 AVENUE APPIA CH 1211 GENEVA 27 | T 41-22-791 3543 F 41-22-788 4226 |
| WEIDEL HELMUT | AUSTRIA | C/O MINISTRY OF FOREIGN AFFAIRS TBW, ZOLLSTRASSE 1 A- 6060 HALL/T | T 43-5223 43 379 F 43-5223 43 826 |
| WICKREMAGE MITURASENA | SRI-LANKA | ADDITIONAL GENERAL MANAGER, CORPORATE PLANNING NATIONAL WATER SUPPLY & DRAINAGE BOARD ROTMALANA | T 94-1-635 281-3 F 94-1-636 449 |
| WINWARD JOHN | UK | INTERNATIONAL ORGANIZATION OF CONSUMERS UNION 9 WHITE LION STREET LONDON N1 9PD | T 44-71-865 9006 F 44-71-865 9007 |
| WIRASINHA RANJITH | SWITZERLAND | EXECUTIVE SECRETARY, WATER SUPPLY & SANITATION COLLABORATIVE COUNCIL (WSSCC) C/O THE WORLD HEALTH ORGANIZATION 20 AV. APPIA CH-1211 GENEVA 27 | T 41-22-791 3685 F 41-22-788 0054 |
| WOLTERS G.J.R. | NETHERLANDS | MINISTRY OF HOUSING PHYSICAL PLANNING AND ENVIRONMENT PO BOX 30945 2500 GX THE HAGUE | T 31-70-339 4651 F 31-70-339 1306 |
| YAO ISSA | BURKINA FASO | CONSULTING SANITARY ENGINEER C/O DR. CHEIKH TOURE CREPA BP 7112 OUAGADOUGOU | T 226-310359 F 226-310361 |
| YUANYUAN LI | CHINA | ENGINEER & ASSISTANT DIRECTOR, THE DEPARTMENT OF WATER RESOURCES, 20 CHEGONGZHUANG ROAD BEIJING 100044 P.R | T 861-5522 427 F 861-8410 178 |

| YURIY OKSAMITNIY | JORDAN | REGIONAL OFFICE UNICEF (MIDDLE EAST AND NORTH | T 962-6 62 9571 |
|-------------------------|-------------|--|---------------------|
| | | AFRICA) - P.O.BOX 811721 AMMAN | F 962-6 64 0049 |
| ZADI KESSY MARCEL | IVORY COAST | P.D.G. SODECI 01 BP 1843 ABIDIAN | T 225-240045 |
| | | | F 225-242033 |
| ZERDOUMI NEFISSA | MOROCCO | UNICEF REPRESENTATIVE | T 212-7-768 300 |
| ZERDOUMI NEPISSA | MOROCCO | 8 CHARIA MARRAKECH - RABAT | F 212-7-762 106 |
| | | | |
| ZHANG ZHUN | CHINA | CONSULTANT | T 86-22-334 1361 |
| | | 206, NO. 19 XINXINGLI QIXIANGTAI ROAD | F 86-22-330 3812 |
| | | TIANJIN SCIENTIFIC & TECHNICAL EXCHANGE, TIANJIN | |
| ZHU YUNPEI | CHINA | MINISTRY OF WATER RESOURCES | T 86-1-32 604 95 |
| | | BAIGUANG ROAD, BEIJING 1000-761 | F 86-1-326 03 65 |
| ZNIBER SEFRIOUI MYRIEME | MOROCCO | UN DEVELOPMENT PROGRAMME | T 212-7-70 35 55 |
| | | CASIER ONU RABAT - CHELLAH | F 212-7-70 15 66 |
| ZOPPIS RODOLFO | ITALY | DIRECTOR GENERAL FOR DEV. COOP. MINISTRY OF | T 39-6-369 14136 |
| DOITE RODOLIO | 111.61 | FOREIGN AFFAIRS OF ITALY VIA S. CONTARINI 25. | F 39-6-3240 585 |
| | | I-00194 ROME | |
| ZOUGGARI MOUNIR | MOROCCO | NATIONAL OFFICE OF POTABLE WATER (ONEP) | |
| | | DIRECTION DE LA PLANIFICATION ET DU DEVELOP- | T 212-7-77 54 05/06 |
| | | PEMENT 28 RUE OQBA AGDAL RABAT | F 212-7-77 54 08 |
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PARTICIPANTS AT THE RABAT MEETING 7 - 10 September 1993



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