



World Water Council
Conseil mondial de l'eau

Report of the Technical Sessions 2nd General Assembly

Changing Course



C. Morry
Editor





Changing

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Report of the Technical Sessions 2nd General Assembly

Course

C. Morry
Editor

Preface

After three years and much effort on the part of the members of the World Water Council (WWC), we can say with some measure of satisfaction that we have accomplished much of what we set out to do in the first three-year term of the Council. In particular, our first major action, the development of a *Vision for Water, Life and Environment for the 21st Century* (the World Water Vision), opened many eyes to the magnitude of the water crisis facing the world. We established the World Commission on Water for the 21st Century, and its report, *A Water-Secure World – Vision for Water, Life and the Environment*, has brought great attention to our common concerns and messages. The outcome of the 2nd World Water Forum in The Hague (March 2000) is an unqualified acceptance by informed members of the public, practitioners from every corner of the water sector, and senior decision makers in governments, that water is indeed life itself, and that this precious resource is critically threatened by overuse and mismanagement.

But raising awareness is clearly not enough, and organisations such as the WWC and its partners have much more to do in turning Vision into Action. Past attempts to address some of the issues underlying the crisis, or to offer partial solutions, have met with limited success. We must see to it that this historically disjointed and uncoordinated approach to the problem does not set the pattern for actions from this point forward.

This challenge formed the backdrop for the discussions that took place in Marseilles, from October 18 to 20, 2000, during the Second General Assembly of the WWC. Although this was only our second General Assembly (the first being the September 1997 meeting in Montreal), many milestones had been passed and there was a need to examine our current programme and opportunities as a guide to starting anew down the long road ahead.

As the world population continues to increase, along with attendant growth in food production, urbanisation and industrialisation, limited resources of clean and easily available surface and groundwater resources are being depleted. We are failing to keep up with water demands for the most basic human needs, while at the same time we are stealing from future generations by draining fossil groundwater reserves and by destroying the supporting freshwater ecosystems that supply, restore and replenish the water supply. We haven't even begun to measure the long-term environmental costs of this short-sighted behaviour. We start the new century with a water crisis on all accounts.

But thanks to the efforts of many thousands of individuals and a multitude of organisations working together throughout the world, we do have a Vision of what we can realistically achieve over the next 25 years if we rejoin our efforts. And more than that, we have the basis of a concerted plan to follow, in the form of a Framework for Action, which many of these same dedicated individuals worked to prepare through our sister organisation, the Global Water Partnership.

The Second General Assembly of the WWC set about to examine what we had learned from our combined efforts, what issues may not have been sufficiently or satisfactorily dealt with in The Hague, and what the priority actions must therefore be for all those concerned with these issues in the world in general, and more specifically within the WWC itself.

This report is the culmination of one element of the Second General Assembly: the Technical Sessions that were put in place to offer guidance to the new Board of Governors, elected at the Assembly.

Special thanks are owed to the members of the Programme Committee, especially M.C. Mercer, who stepped into the fray almost at the last minute as Interim Chair to make arrangements for the technical programme. Our gratitude also goes to Jamil Al-Alawi, Vanessa Lemaire-Drinkwater, and all of their team of dedicated staff and volunteers who worked so hard to make the meetings of the Second General Assembly a success. Many other organisations made financial, intellectual, and other contributions to the Second General Assembly and the Technical Sessions, and their contributions are much appreciated.

Our discussions in Marseilles, as reflected in this report, are important as we move forward to develop our programme of activities for the next triennium.



Mahmoud A. Abu-Zeid
President of the World Water Council
Minister of Water Resources and Irrigation
Giza, Egypt

Foreword

The waning years of the last millennium saw an increasing awareness of the impending water crisis that had been brought about by overexploitation, waste and pollution. By now, those of us who have been deeply involved in the water field have all seen the statistics and know all too well the social, environmental and economic dimensions of this crisis. Numerous workshops, commissions, conferences and studies have been dedicated to the problem and, in the year 2000 alone, significant attempts were made to come to grips with these realities, including the publication of the World Water Vision, the Framework for Action, and the report of the World Commission on Dams. Through all of this, the World Water Council has been actively seeking to determine the role that it should play, alongside its partner organisations, in addressing the most urgent priorities identified through these parallel processes.

Three months before the 2nd General Assembly of the World Water Council (WWC) in Marseilles, the Programme Committee was asked to develop an accompanying Technical Programme, and the undersigned was asked to assume the Chair. This was not to be an ordinary symposium series, offered to break the strain of a heavy schedule of business meetings. It was intended from the start that the Technical Sessions would form an integral part of the planning process to pick up from the high point of WWC's existence so far, the public presentation of the World Water Vision in The Hague, and serve to guide the next steps by the WWC to respond to the challenges of that Vision.

It was a challenge to stage such an event, drawing in some of the foremost authorities in the field in order to share their views and engage the Members in debate. The Committee also felt the need to conduct a thorough survey of WWC Members and a wide selection of water sector professionals and stakeholder groups to determine what they believed were the outstanding issues flowing from the Vision and the World Water Forum held in March 2000. Their views could form the backdrop for the discussions, not only in the Technical Sessions, but also in the subsequent deliberations of the Board of Governors.

Members of the Programme Committee and the Secretariat participated through teleconference and e-mail to design a programme and select a list of speakers. This commitment was key to building the programme. Special recognition is also due to Richard Connor, of the WWC Western Hemispheric Bureau, and Vanessa Lemaire-Drinkwater, of the Secretariat, who collaborated in carrying out and compiling the survey of views that constituted the background paper for Technical Session 1. Finally, a note of thanks is owed to Chris Morry, who works with me in the IUCN Canada Office, and who kindly volunteered to act as rapporteur for the Technical Sessions and as editor of this report.

The purpose in preparing this report is threefold. Firstly, to act as a complete and reasonably detailed reference account of the survey of opinions and the proceedings of the Technical Sessions. Secondly, to provide a vehicle for publishing in their entirety some of the more cogent and interesting responses to the survey and presentations at the Technical Sessions, representing a spectrum of viewpoints and issues. Finally, the most important purpose is to provide the Bureau and the Programme Committee with a starting point for their deliberations on the future programmes and the direction to be taken by the WWC. We hope that it will serve this role as the Council enters its second triennium.



M. C. Mercer
Interim Chair, Programme Committee

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Executive Summary

The World Water Council (WWC) convened its 2nd General Assembly in Marseilles, October 18-20, 2000 (the first having taken place in Montreal, in 1997). This was the first major meeting of WWC members since the 2nd World Water Forum in The Hague in March 2000, at which time the WWC delivered its *Vision for Water, Life and the Environment for the 21st Century* (the World Water Vision).

This sobering but hopeful forward vision of how the world can and must cope with the water crisis it is currently facing was based upon a monumental effort of global consultations over an 18-month period. The Vision was accompanied by an action plan, the Framework for Action (FFA), which was developed by WWC's partner organisation, the Global Water Partnership (GWP), and also evolved from extensive consultations.

The Vision and the World Water Forum were major and important milestones, but they were not the end of the process. It is thus important for all concerned to maintain the momentum that was built in the Vision process and ensure that our actions speak as loudly as our words.

It was against this backdrop that the WWC set about to take advantage of its 2nd General Assembly to arrange for a brief retrospective and to seek advice on the way forward. To do this, it was decided that the first step in the process would be the task of asking its members and informed observers from every corner of the water world what really hadn't been done well enough at The Hague. The question posed was:

Which issues, underlying the major problems and dilemmas in the water field, both societal and technical, were not addressed, or were not sufficiently addressed, at the 2nd World Water Forum in The Hague?

By answering this question, it was felt that the stage could be properly set to then begin to answer two questions that are important to the WWC's planning:

Given these deficiencies in the Vision and Framework for Action, and needing to properly address them in order to attack the problems facing the world of today and tomorrow, what should be the way forward for the world in regard to water resource management?

and

Having accepted a course of action for the world in addressing the deficiencies in the way we currently manage our precious water resources, what should be the future role for the World Water Council in helping to address these problems?

The first of these three questions formed the basis of a survey conducted by calling upon all members of the World Water Council and a selection of 50 water experts, chosen strategically to represent a meaningful cross-section of the global water community in all of its facets and interests. The results of this survey were compiled and are reported in Part 2 of this report, along with a selection of the actual responses received.

This Consultation Summary Report, and all of the submissions received by that date, were circulated to participants at the 2nd General Assembly. In addition, a series of three Technical Sessions was staged to address each of the three questions above. The Summary Report and its findings therefore served as the basis for discussion at the first Technical Session and thereby provided essential input to the two subsequent Technical Sessions.

And what did the respondents to the survey determine were the weaknesses in The Hague and, by inference, in the Vision and the FFA? In summary, they concluded that the WWC, its partners such as the GWP, and other concerned organisations in the water community need to direct much more attention to the following seven areas, which quite obviously are not mutually exclusive:

- **Co-operation and conflict resolution**

The *sectoral approach* to water resource planning and use has failed – it only leads to conflicts and cannot achieve consensus. Co-operation is needed among sectors; but it is also needed among technical disciplines, nations, governments and government agencies, industrial interests and NGOs. There is a strong belief that adopting a river-basin approach to water resource management is important to ensure that all interests are heard, conflicts are addressed, and consensus is achieved.

• Communication, outreach and participation

Despite millions of dollars spent and countless meetings convened, the development of the World Water Vision could of course not reach even a small fraction of those with a personal stake in the future of water resource management. People must not only be informed but must be welcomed into the process and permitted fair and equitable access to decision-making. This is what is meant by creating a movement for change.

• Environment, ecosystem maintenance and pollution prevention

There seems to be a view on the part of many that humanity must compete with nature to survive. This mindset needs to be changed to recognise that it is freshwater and related ecosystems that capture, deliver and cleanse the water that humanity needs for its many valid uses. When we take water from nature unnecessarily or return it too polluted to be restored, we are stealing from ourselves and our children. These costs and trade-offs must be fully recognised and accepted in an informed water resource decision-making process.

• Funding, marketing mechanisms and water pricing

Water is both a social and an economic good, and both facets must be recognised when attempting to undo the failures of existing systems of provision of water by instituting more equitable and viable market-based systems. In addition, the full value of the ecosystem goods and services affected by such decision-making must be taken into consideration in order to ensure that the supporting infrastructure, not only the dams and the reservoirs but in this case the natural environment, is sustained and conserved.

• Infrastructure

Soon after the 2nd General Assembly, the World Commission on Dams (WCD) delivered its report and recommendations. The respondents to the WWC survey anticipated the findings of the WCD in recognising that the rationale for maintaining the use of existing major infrastructure and for building new systems needs to be better examined in the light of social and environmental consequences. At the same time, the public has a right to know how the benefits of dams, in terms of flood control, water conservation and energy generation, stack up against the alternatives, knowing what the full consequences of each option will be. All stakeholders have a right to be involved in such decision-making.

• Society, food and poverty

Water exists in the world in quantities sufficient to meet all the basic needs of people without destroying the environment. But decisions are regularly made concerning allocation, distribution and use that fail to prioritise access to water to meet basic needs before assigning scarce water to inefficient and potentially environmentally harmful uses. Whether there is formal recognition that water for consumption and sanitation is a basic human right, it should nevertheless be treated as having first call over other human uses.

• Technology and data

Technology may not provide all the solutions to all of the world's ills, and it may even be responsible for causing some of them. Nevertheless, the Vision and the FFA seem to inadequately address the real potential for making use of technological solutions, such as desalination, conservation, and recycling methods, to increase availability of water. Not only modern technologies, but also traditional ancient technologies, may hold the key to resolving many of the local water shortage problems found around the world. The basic science and technology that is assumed as a given in the water resource management practices of most Northern civilisations is still largely a dream in the South; more needs to be done to promote transfer of knowledge and technologies, not just from North to South but also South to South.

Of course the Vision addressed all of these areas, as did the FFA. But at least as far as these respondents were concerned, there were areas in each category where the results and the processes put in place in The Hague had not gone far enough. This judgement was reflected in several presentations and in audience feedback during the course of the three Technical Sessions in Marseilles.

All of these issues are covered in greater detail in the report that follows, but a few illustrative examples may help to set the stage for a closer examination of this report.

In the first Technical Session, five speakers – representing the three major water sectors in the Vision (Food, People and Nature), as well as spokespersons for the gender perspective and the private sector – were asked to respond to the Consultation Summary Report, and also to highlight areas where their interests had not been well addressed.

A number of the speakers pointed out that the WWC General Assembly was a living example of one of the problems identified in relation to representation in water resource management. The group is largely male, largely grey, and geographically limited. This is typical in the water sector and more must be done to broaden engagement if we are to better represent the interests of the global community.

The decision to take water from nature to provide for human needs is not one that can be based on technical analysis alone – it is also a societal judgement. There is no *unused* water in nature and every litre taken has its price in terms of lost environmental goods and services. Society enjoys the benefits and pays the ultimate price, along with the environment, for a bad decision.

The view was expressed that, during the course of developing the Water for Food Vision, the fact that initially this was meant to be a "*Vision of Water for Food and Rural Development*" was somehow forgotten. The two sides of this duality never really communicated with one another and thus the stronger force of food production dominated. This is regrettable because more attention paid to the rural development aspect would have helped break down the needless barrier between this element of the Vision and the Water for People element. Only by putting people at the centre of water resource planning, and by recognising the specific roles of women and men in this, can we expect to have fair, equitable and reasoned consensus.

The world is rapidly urbanising and people are concentrating in cities of ever-increasing size. The real future problems for industrial areas lie in the staggering task of dealing with megacities, especially in terms of accessibility to high quality drinking water, attending to potential disease situations, and dealing with growing waste streams.

During the second Technical Session, presentations were heard on a number of topics that emerged from the consultations as being areas of focus for the future of water resource management.

A presentation on the route toward privatised water services in the United Kingdom provided the opportunity to discuss whether such a model would be feasible in other settings. It was generally concluded that a market-based model of this kind has considerable potential in most economically developed countries. However, there are concerns regarding potential inefficiencies, inequitable allocation, and even corruption in developing economies. There is a clear need to tailor approaches to the particular context.

Benchmarking progress requires a set of standards and a regime of monitoring that does not exist in most parts of the world. If we cannot measure *success*, how can we promote the application of these apparently viable case histories and success stories? Thus there is a need to develop easily applied measures or indicators – technical, social, and economic. In some cases this may need to be by studying analogues such as economic improvement, rather than the more difficult-to-measure behavioural changes that led to it.

Intersectoral integration continues to be the *Holy Grail* that eludes water resource planners all over the world. The example of the GAP project in Southeastern Anatolia in Turkey is one example where efforts are being made to break down these barriers, with slow progress. On the other hand, in some parts of the world, such as small island states in the Caribbean, intersectoral integration is a given, since society itself is so closely interwoven and interdependent across all sectors. It isn't only intersectoral integration that is important but the full range of stakeholder participation, including women and all elements of society, and neighbouring jurisdictions – be they national or international.

This debate led logically into the next series of presentations and comments on the participatory approach. Here too it was argued that what works in one setting may not be suitable in another geographic area or at a higher or lower scale in the organisational pyramid of water resource management. For example, community-based solutions seldom function in the same manner as intergovernmental processes. In the USA, the Tennessee Valley Authority has recognised this by developing different techniques to encourage participation at various levels of the process. In other parts of the world, such as West Africa, Turkey and the Aral Sea Basin, unique solutions are being applied to permit and encourage populations to become involved that are not normally enabled to do so. Once again, measures of success are important: effectiveness (cost/benefit), sustainability, stakeholder acceptance, and environmental effects.

One final presentation in this session suggested the need for an international mechanism – a task force or emergency measures operation – to provide for clean drinking water and sanitation services following natural and human-induced disasters. Existing national aid agencies, UN organisations, and NGO services are ill-equipped to provide for such basic needs.

In the third and final Technical Session, things were brought home by considering how the earlier analysis and discussion applies to the future activities of the WWC. Presentations focussed on how the WWC could better engage civil society, decision-makers, and other water-related organisations, and how it could benefit from improved use of information and communications media, as well as international conferences and other forums, to communicate its messages. Opportunities also exist to use the international stage to highlight issues, by identifying suitable recipients for international water awards in fields such as providing for clean water for human needs in arid regions.

We never know the worth of water 'til the well is dry. English Proverb



In terms of the upcoming events that will serve as a platform for the WWC, the most important is the 3rd World Water Forum, which will take place in Japan in 2003. This must be the occasion to communicate to the world how the WWC and its partners have moved from Vision to Action in the key areas identified in the survey and during the Technical Sessions. On the way to the 3rd World Water Forum, WWC should take full advantage of other opportunities, such as the Dublin+10 event in Bonn in 2001, the Rio+10 event in 2002, and the annual Stockholm Water Symposia, to help build and maintain momentum for common action.

Civil society is people, and people resent being neglected in initiatives that deeply affect them. The WWC must find ways to be ever more open to all elements of civil society and, in particular, to recognise the contributions that can be made by NGOs. More membership by NGOs can be encouraged. It was noted that recent elections to the Board of Governors did result in one additional member representing an NGO.

The proliferation of water-based international bodies in recent years has created a potential for great waste and inefficiency of action. The WWC will need to effectively co-ordinate its own activities and events with those of longstanding member organisations, such as the International Water Resources Association. And indeed, there is room for improvement in the close co-operation that should exist between the WWC and the GWP. The horizontal and vertical networks that so commonly exist in and among university and research bodies might well serve the water community as one model for co-operation and co-ordination of action.

Now that the World Commission on Dams has delivered its report and findings, it has disbanded. The door is open for the WWC to assume a role in examining the major recommendations of the WCD. A WWC task force on dams is in the process of being set up, and will give its recommendations and advise the WWC Board of Governors in this regard.

The results of the three Technical Sessions and the Consultation Summary Report are presented as a contribution to positioning the WWC in planning for its own future programming and for working more closely with these other concerned organisations in moving from Vision to Action.

Part 1

Technical Session 1: World Water Vision – Unresolved Issues

*Irrigation of the land
with seawater desalinated
by fusion power is ancient.
It's called 'rain'.*

Michael McClary



Introduction

The first Technical Session began immediately after the formal opening of the Second General Assembly, which was officiated by Loïc Fauchon, representing the host city of Marseilles, and H.E. Dr. Mahmoud Abu-Zeid, President of the World Water Council.

Background on Technical Sessions

Mac Mercer, Interim Chair, Programme Committee

Mac Mercer, Interim Chair of the Programme Committee, introduced the Technical Sessions, explaining that the purpose of developing three Technical Sessions was to take advantage of the broad attendance at the General Assembly, to provide follow-up to the World Water Vision, and to contribute to programme planning for the next triennium.

To this end, the first Technical Session focuses on unresolved issues from the March 2000 World Water Forum in The Hague, the second session focuses on the way forward in world water management, and the third on the way forward for the World Water Council (WWC).

Sessions were designed to be interactive, with comments, questions and discussion from the floor constituting an important component.

Presentation of Summary Report

In order to probe the range of issues that people felt were in need of more attention after The Hague, the following question was sent out to both WWC members and selected water sector professionals:

Which issues, underlying the major problems and dilemmas in the water field, both societal and technical, were not addressed, or were not sufficiently addressed, at the 2nd World Water Forum in The Hague?

Seven categories of concerns were raised:

- *Co-operation and conflict resolution* (e.g., institutions, co-operation, consensus, linkages)
- *Communication, outreach and participation* (e.g., making water everyone's responsibility, successes, awareness)
- *Environment, ecosystems and pollution prevention* (e.g., ecosystems' values, biodiversity, protection, enforcement)
- *Funding, market mechanisms and water pricing* (e.g., incentives, private sector, commercialisation)
- *Infrastructure* (e.g., guidance, effects of floods, inter-basin transfers)
- *Society, food and poverty* (e.g., prioritisation, urban world, disaster preparedness, water rights)
- *Technology and data* (e.g., data, climate change)

A complete analysis of these categories, as well as a compilation of the original contributions from members and advisors received prior to October 10, 2000, was distributed at the session for reference purposes. An updated version of the analysis, which details additional results from contributions received subsequent to the Assembly, and select examples of the responses received, can be found in Part 2.

Panel Discussion

Moderator

William Cosgrove, Former Director, Vision Management Unit

William Cosgrove, former director of the Vision Management Unit, moderated the session. The panel members, who were tasked with responding to the issues raised in the Consultation Summary Report, were:

- Chris Morry – Water and Nature
- Mathieu Pinkers – Water for Food
- Hans Van Damme – Water for People
- Begum Shamsun Nagar – Gender
- Charles de Maud'huy – Private Sector

William Cosgrove challenged the group to be controversial and to raise any issues that may have been overlooked in the contributed responses and summary, keeping in mind that there is a need to prioritise the work undertaken by the WWC so that concrete progress can be demonstrated at the 3rd World Water Forum in three years' time.

Water and Nature

Chris Morry

Chris Morry began by raising two process-related issues. First, he noted that the WWC, as represented by the participants at the day's event, was in danger of becoming known as an "old boys club." In addition to addressing gender imbalance, the whole area of inclusiveness must be addressed if the work of the Council is to be relevant, particularly to the local stakeholders. Second, there has been a decided lack of cross-sectoral dialogue in the past. Although this began to be addressed in the lead-up to The Hague, there has been some backsliding since then. Full stakeholder involvement and representation of all sector interests is essential if a global movement for change away from unsustainable water resource management practices is to take place.



Speaking from the perspective of the Water and Nature component of the Vision, he proceeded to point out that society must make up its mind about how much of the natural environment and biodiversity it is prepared to sacrifice in order to meet its own needs. This is truly a societal decision and not a scientific one. Because freshwater ecosystems are already devastated throughout the world, the issue is not one of preventing damage but of limiting it to a level that informed decision-making dictates.

To do this, water pricing must take into account the value of ecosystem goods and services that will be diminished as further abstraction for human use takes place. The revenue thus generated should be used to conserve and protect the remaining freshwater ecosystem base. Decisions to build and operate infrastructure such as dams and reservoirs also need to be more sensitive to the social and environmental costs. And finally, it must always be remembered that when water is taken from the environment for human benefit, it is at the expense of some *environmental* benefit to humans. There is no surplus water in nature.

The Water and Nature Action Plan, a programme worth US\$30 million over the next five years, will combine the sponsorship of the Netherlands government, the Global Environment Facility (GEF) and possibly others, with the combined efforts of IUCN, the World Wide Fund for Nature (WWF), and Global Water Partnership (GWP). Other participants will be welcome to join. The work will focus on the issues discussed above, including methods of valuing ecosystem goods and services, and demonstrating practical examples of participatory integrated catchment management.

Water for Food

Mathieu Pinkers

Mathieu Pinkers began his presentation by explaining that, while he had been involved in the early stages of the Water for Food exercise, his colleagues at Wageningen University had been more deeply involved since then. Therefore, his comments are more those of an independent but interested observer.

One of the greatest problems in developing the Vision, and now in implementing follow-up actions, has been the fragmentation of the water community into sectors, or interests. This problem was certainly worse five years ago than it is today, thanks to the Vision process, but more work is needed in creating linkages.

The Vision process was weak on in-depth study and the analysis of existing data and information. There seemed to be a common belief that insufficient information exists to carry out meaningful analysis at this time, but in many cases this is incorrect. The link has therefore been missed between knowledge, policy and practice.

Within the Water for Food group, there was a failure to link the two components of the mandate: water for food, and water for rural development. Also, there are so many common interests between Water for Food and Water and Nature that it is remarkable they were not better integrated. They are not incompatible.

The process is not to blame; it is only the starting point. WWC has gained authority in the world as a result of the Vision, and needs to use this wisely by ensuring an inclusive and collective follow-up to the Vision.

Water for People

Hans Van Damme

Following on Chris Morry's comments, Hans Van Damme prefaced his remarks by noting the anomaly that the room contained 90 people, mostly men, endeavouring to represent the interests of the one billion people in the world without safe drinking water and the three billion without adequate sanitation. This demonstrates, more clearly than words, the failure of the WWC to attract truly representative participation. In addition to the glaring gender imbalance, there are too many global professionals involved and not enough real stakeholder groups.

The over-3,000 people consulted in developing the Water for People Vision, also known as Vision 21, all said basically the same thing: there is an urgent need for change in the way water is managed. The conventional top-down approach has failed and it is time to test the feasibility of a more equitable, bottom-up approach. If you start with people, and involve them in meaningful ways at every step of the planning, decision-making, and implementation of water resource management, it only stands to reason that the result will be more representative, equitable and well-managed water systems, less prone to the corruption that plagues water management in many parts of the world.

This is not to say that governments and the powers that be have no further role to play. They must see to it that the people are empowered to take on this awesome task. And if people are to be the managers, then women obviously have to play an equal role, and the disenfranchised of society – including landless people and children – also need to play a part if it is to be a truly democratic process. Of course this will be resisted by vested interests in many areas.

With people at the centre, they will inevitably seek their rights and work synergistically to influence needed institutional change. Finally, we must learn to tap people's strongly held spiritual and cultural values that promote sound natural resource management.

The key is not to be overwhelmed with the magnitude of the task, but to think 20 or 25 years down the road and prioritise and pace the work accordingly.

William Cosgrove added that this presentation reminds us once again that we are gathered together as members of the WWC – not to dictate to people, but to listen to them and serve their needs.

Gender

Begum Shamsun Nagar

Begum Shamsun Nagar began her remarks by noting that Water for People might better be labelled Water for Men and Women, to remind us of the essential duality of issues involved. Women's concerns and interests in water resource management are often different from those of men, and these distinctions need to be recognised. The Gender and Water Alliance is one attempt to do this. Comprised of both organisations and individuals, its principal goal is to mainstream gender in all levels of water resource management and to influence policy development.

There are two critical tasks underlying this mainstreaming process: ensuring legal rights for women, and providing women with the needed education and knowledge to take up their role on an equal footing. It was remarked earlier by Hans Van Damme that there are too few women engineers in the WWC. But the reality is that there are too few well-educated women in all aspects of the water field. Women are the water engineers and managers in homes all over the world. But they lack the education in most cases to take their rightful place in the formal water management community.

Women must not be thought of as beneficiaries of good water resource management but as full partners in it. Only when this happens will gender no longer be an issue. Moreover, although there is resistance among governments to declare it as such, water is *de facto* a human right and it is women's right and duty to fight for this and accept an equal role in water management.

William Cosgrove commented that the Gender and Water Alliance is perhaps the greatest follow-on from The Hague. It is ensuring that its voice is heard at every meeting that takes place on water resource management anywhere in the world, and is actively reaching out to men to join the Alliance.

Private Sector

Charles de Maud'huy

As a manager in a large international water company (Générale des Eaux), Charles de Maud'huy noted that his experience has been limited to large cities such as Buenos Aires and Mexico City. However, he has been able to draw upon the experience of others in the field who work in more diverse settings.

Supplying water to the growing millions in large cities is approaching a critical point. There is a need to address three priorities:

- ensuring accessibility of high quality drinking water
- attending to potential incidences of disease
- dealing with the problem of wastewater streams.

Involvement of the private sector in water management can take many forms, but in all forms the stakeholders must be able to participate in a transparent process and government must not relinquish its role. In Mexico, France and many parts of the eastern United States, private sector involvement is limited to supply and delivery. In Buenos Aires, the private sector also looks after investments. In other parts of the U.S. and some other countries, water rights are privately held and can be traded. The cost of service and public participation are two key issues to be addressed.

In every pricing plan, a main consideration must be the ability to pay. Participation by the public is generally through local governments involved in a public/private partnership team. Therefore, the way to ensure gender equality is for a greater number of women to become involved in their local governments.

Audience Response

William Cosgrove summarised the five presentations, noting that there was very little conflict in the issues raised. He then invited the audience to participate in the identification of the key messages that they had taken from the presentations¹. These were identified as follows.

- Water for Food should have received more attention in the Vision. Drinking water constitutes only 1 per cent of all available water, and water for purposes other than food production totals only about 10 per cent. We need to reduce the share of water going to agriculture by ensuring better management. For example, the “virtual water” going to the Middle East in imported consumer goods exceeds the amount of water naturally available in that region. The Vision should also have looked more deeply into alternate energy sources, other than hydroelectricity.

- The Vision was almost silent on the issue of ground-water, yet arid regions are almost totally reliant on this source of water. Not only is it being overexploited and depleted, but in many cases it is becoming too contaminated to use.

- The Water and Nature Vision is valuable and interesting as far as it goes, but it neglects the important role of forests in water retention. With regard to privatisation, every country needs a strong legal and policy framework before venturing in this direction. There is agreement that the issue of loss of water in urban distribution systems needs urgent attention. There is also a need for regional-scale databases and conventions for transboundary co-operation. In this regard, the WWC could also play a much-needed role in education and training at the regional level.

- A speaker representing the Southern African Development Community (SADC) noted that SADC has debated all the issues raised in this session, plus one more: the importance of providing effective mechanisms for the “equitable and reasonable” sharing of waters in regional transboundary situations. They, too, are actively attempting to address gender imbalance, but are hampered by the dearth of well-trained and educated women and so see this as an area in need of attention.

- Water needs to be wisely managed in countries where it is a scarce commodity, such as in Turkey. Technology is required to achieve this, however the transfer of technology to developing countries is neither smooth nor effective.

- There are two streams of thought in the WWC, and both need to be accommodated: (1) the Vision is fine in and of itself, but (2) it must be matched with practical activity such as examining pricing methods, diverting water from less-efficient to more-efficient forms of agriculture, and investigating the application of new technologies (e.g., improvements in desalination).

- A spokesperson for the International Hydropower Association (IHA) took exception to a remark by Chris Morry that dams and reservoirs are often constructed without due consideration to social and environmental costs. These are indeed important and must be taken into account, but can be avoided or mitigated. Also, hydro has a beneficial environmental effect in offsetting the burning of fossil fuels or use of nuclear energy for electric generation. The present debate, which focuses on large hydro dams, neglects the far more numerous smaller-scale facilities that have potentially less impact and greater benefits. Finally, it was remarked that international NGOs based in Switzerland or the U.S. should not be dictating decisions to people in places such as Nepal where hydro may well be the optimal solution to meet their needs².

- It is deplorable that only 14 of the more than 200 people approached responded to the questionnaire. WWC should create an electronic registry of success stories that can be borrowed and adapted by people in other areas. This also supports the concept of twinning projects in different settings to share ideas. This is something that could be done right away and be of immediate value.

- Two issues have been neglected: the whole subject of floods and their social and environmental consequences, and the need for integrated basin management.

- In the Aral Sea Basin, two issues are of special importance: (1) it must be recognised that irrigation is the main source of food for the next century, and it therefore needs to be expanded as well as made more efficient; and (2) there is an urgent need for international water law to deal with the sharing of transboundary water.

- Food, fibre and feed production must be the focus of intersectoral dialogue. WWC needs to adopt a clear position on this subject. There seems to be more talk than action on gender mainstreaming; there is a need for success stories to emulate. WWC should adopt more of an advocacy role. The growing world population and the decline in overseas development assistance (ODA) in recent years is widening the gap between the haves and have-nots in the world. And as mentioned by a previous speaker, there needs to be more emphasis on the benefits of hydropower.

1. Audience participation is not identified as to individual, organisation or geographic origin unless essential to the intervention made.
2. Editor's Note: Time did not permit rebuttal on this point in the session. By way of clarification, IUCN is based in Switzerland but has over 900 staff in 45 offices around the world, only 100 of which are based at headquarters. The largest country group, with over 200 employees, is in Pakistan, and the Nepal office has over 90 employees, mostly local nationals. Participatory community-based decision-making is the thrust of all of IUCN's programmes.

- A spokesperson from an NGO in Turkey supported the statement that women need to be partners in, not beneficiaries of, decision-making. Also, there needs to be more local NGO representation in the WWC. Perhaps there should be a quota for women and NGOs.

- The WWC needs to give more attention to the link between vegetative cover and water retention. In Turkey, a plan is already in motion to plant 10 million acres of oak trees for this purpose.

At this point in the dialogue, time unfortunately ran out and there was no opportunity for the panel to respond to these interesting interventions.

Two members of the audience submitted additional comments in writing that either supported what they had said from the floor or added new ideas:

- In addition to other issues discussed concerning water quality (surface, ground and coastal), we also need to consider the impacts of, and potential conflicts relating to acid rain, particularly in relation to its transboundary, long-range movement.

- Water is not just a commodity, it is a resource that must be monitored and assessed to provide high quality data and information for its proper management. This is not currently feasible in many developing countries. These countries need support in order to put such monitoring and assessment systems in place. Reliable data also depend on transparency, access to and sharing of information, and scientific capacity.



Part 1

Technical Session 2: The Way Forward for World Water

The best man is like water. Water is good; it benefits all things and does not compete with them. It dwells in lowly places that all disdain. This is why it is so near to Tao.
Lao-tzu (604 BC - 531 BC),
The Way of Lao-tzu



Introduction

Mac Mercer, Interim Chair, Programme Committee

Mac Mercer introduced the topics that had been chosen by the programme committee after The Hague to incite action leading to the next World Water Forum:

- Financing and Valuing Water
 - Benchmarking/Monitoring and Indicators
 - Intersectoral Integration
 - Participatory Approaches
- For the purpose of this session, an additional presentation was added as a priority concern:
- Water Emergencies

Presentations

Session Chair

Tony Milburn, International Water Association

This Technical Session, chaired by Tony Milburn of the International Water Association, looked at the way forward for the world's water in the light of a number of the issues raised in Session 1 and the topics introduced by Mac Mercer above.

For each topic, the speaker's presentation is followed by response(s) from one or more commentators before opening discussion to the audience.

Financing and Valuing Water

John Banyard, Severn Trent, UK*

John Banyard, representing Severn Trent, described how the UK developed towards privatisation of water services in a full historical context. Some 160 years ago, a report on water supply and sanitation indicated the woeful state of conditions in Great Britain. Municipalities simply would not co-operate with one another in providing these services. In many cities, only 20 per cent of the population received any service at all. This state of conditions existed for the next 120 years, until the government had had enough and created 10 regional water authorities based on river basins. The choice of a river-basin approach did not indicate any particularly enlightened thinking; it was only employed to avoid the divisions being based on municipalities, which would have led to conflict.

This was a very unpopular move with municipalities, but they were assuaged by having the majority of seats on the boards and committees. Water sector professionals, who were not allowed to take part in decision-making, could only offer their advice. By 1980, the system was being challenged and an examination of international models was undertaken. A system modelled on private management but actually run by government was the resulting model attempted, but government cutbacks led to this not being feasible and full privatisation was the eventual result. Government maintains policing and regulatory responsibilities for several important aspects, including pricing and quality.

The result was an increase in water quality, improvement of compliance in sewage works, reduction in labour requirements, reduction in accidents, initial high incomes for

shareholders (though this fell back later), and an increase in metering of water – thereby promoting conservation. The cost of water was also kept in bounds, and includes full cost of service delivery.

Commentator

Pierre-Frédéric Tenière-Buchot, UNEP

Pierre-Frédéric Tenière-Buchot, of the United Nations Environment Programme (UNEP), noted that this is an interesting situation because it parallels similar evolution of public/private service delivery elsewhere in the world. He quoted messages on WWC postcards (distributed in The Hague to garner additional feedback on concerns related to the Vision) that highlighted the gap between needed and available resources (e.g., \$80 billion being spent versus \$180 billion needed for drinking water services). This is far off the mark and actually getting worse. The best estimate is that \$9 billion may be added in spending each year, and this doesn't even keep up with growth in demand.

There is a need to promote an "Open Water Society" that is not limited to specialists, and includes all the financial skills needed to provide an economically viable solution. To assist with this, there need to be global and regional economic studies.

In the end, the gap between rich and poor will probably not narrow and therefore the rich must pay for water for the poor.

Valuing is not the same as pricing. Valuing includes environmental protection and this increases price.

There is also a need to promote a river-basin approach in an integrated manner and simultaneously meet all needs, because otherwise water for people will be taken first, sanitation dealt with later, and environment will be dealt with last or never. This is a formula for failure.

Pierre-Frédéric Tenière-Buchot concluded that water is everybody's business, that everyone should have a say, and that water is not only for agricultural purposes.

The Chair noted that success of the UK example can really only work in wealthy countries with sophisticated stock markets, as the last speaker had noted.

Audience Response

- Electric grids now permit users to buy energy from the most cost-effective source. Could this be done in water delivery? John Banyard responded that the UK is looking into a common carriage system, but there are questions about safety and the quality of water put into the pipe by different sources. Industrial users will probably get this first.

In response to a follow-up intervention by a member of the audience suggesting that this could lead to major work in creating diversions between watersheds, John Banyard noted that water will not be moved out of the catchment area.

- Hans Van Damme (Water for People) noted that the cost of providing services was calculated by their group using assumptions that differ from those quoted in the World Water Vision: 3.1 billion more people will be in need of water and 4.9 billion in need of adequate sanitation in the near future. The cost of providing water is \$10-\$50 per person, depending on local conditions. Therefore, \$225 billion more is needed over 25 years, or \$9 billion per year.

- There is a need to look at access to safe water, not just fresh water – and there is a very big educational challenge involved.

* The complete text of this presentation may be found in Part 2.

- Water cannot be transported as easily or as cheaply as electricity, and this should be recognised in decision-making. Desalination may be a better solution within 300 km of the coast. We need to think more about end-use in pricing.

- Was the 1984 drought in England in any way related to the cut in government investment at that time? John Banyard responded that the cutbacks had been in effect for 10 years by then, and had nothing to do with the shortage 10 years later. It is worthy of note that the public outcry at the time was about the inability to use water on lawns and gardens. This demonstrates the difference in perceived needs in wealthy versus poor regions.

- WWC President Abu-Zeid intervened to note that financing (public/private) was discussed in The Hague, but the big question is how to attract investment to close the gap. He added that the social value of water should be considered as well as the economic and environmental values. The cost of waterworks development should examine the value of water (including social and environmental) and mechanisms to recover cost that are appropriate to national circumstances.

Benchmarking/Monitoring and Indicators

Janos Bogardi, UNESCO

In preparing for this presentation, Janos Bogardi of UNESCO re-examined the Vision in light of benchmarking and indicators. The Vision says that the water crisis is a crisis of management, not resources. We need to change behaviour toward integrated water resource management (IWRM). Water quality issues will be the greatest problem in years to come. We need indicators that can measure effectiveness of governance, as well as behavioural changes and the more obvious and easily measured quantity and quality issues. It will be difficult to measure some issues that are more ephemeral, such as cultural and spiritual values. Benchmarking of behavioural change is also very difficult. Funding availability is an easy thing to measure and can be a good analogue of behavioural change.

The Vision also tells us that there is no global water quantity crisis ahead. The problem is not at the global scale, but the regional and local scales – which may aggregate to global consequences.

Implementation of the Vision can be measured by actions of the international community, national and sub-national governments, private sector and NGOs.

The World Water Development Report is being assembled by over 20 United Nations agencies and programmes, and will measure ecosystems, hydrology, water quality (surface and groundwater), socio-economic indicators, etc. This will be a biannual report.

Commentator

Mohamed Aït-Kadi

Mohamed Aït-Kadi noted that this topic is definitely one that can take us from the “what” to the “how” or, as Dr. Bogardi put it, from Vision to reality. Mac Mercer mentioned that one of the key issues is to measure improvement in developing countries. It all comes down to common sense. We need practical changes and the old ways we have followed are still holding us back.



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Practical solutions to complex, multidimensional problems cannot be found in simple changes.

The Framework for Action developed by the GWP called for the creation of a toolbox that includes a database of success stories in IWRM. But how do we measure success? What are the standards and what are the factors that lead to success? Developing country decision makers need to take some cost-effective shortcuts. Access to information and standards is therefore very important. The WWC should take a big role in benchmarking.

The Chair, Tony Milburn, noted the contrast between the formal and informal measurement methods presented by the two speakers.

Audience Response

- The Board of Governors had felt that this would be a difficult topic to address, but speakers have given a good view of the road ahead. One area not yet well covered in discussion is the application of science. What are the scientific benchmarking needs? Dr. Bogardi replied that the scientific community needs to speak up and make itself heard as to the contributions it has to offer. The Chair added that good science and best practice should be informing decision-making.

- Developing countries in particular need advanced science and technologies that are appropriate, and there is a need for the means to provide this. As an example, a large irrigator in Saudi Arabia was persuaded to invest in this simply on the basis of economic benefits.

Intersectoral Integration

Olçay Ünver, South Eastern Anatolia/ GAP Project*

Olçay Ünver, speaking from the perspective of the South Eastern Anatolia Project, prefaced his remarks by noting that this area of Turkey was always marginal from an economic standpoint. Living standards needed to be raised. The first thought was to provide water as the catalyst for "sustainable human development." To this end, a social action plan was prepared, based on equity, justice and local participation.

One element of the project at the grassroots level, which is delivered and managed locally, is the empowerment of women and men. Another is to look at more crops per drop³ (including fibre as well as food). Urban wastewater is being reused in an attempt to increase efficiency and reduce additional water abstraction.

Intersectoral integration has been a real challenge – even getting everyone to agree on a common definition of "sustainable human development" has proven difficult. Links among and between local, national and international organisations also create a complex dynamic.

Commentator

Lester Forde

Lester Forde took a different view of the problem, from the perspective of Caribbean small island states.

As with small islands elsewhere, integration takes on special meaning. In Trinidad, you simply cannot separate water for people, water for food, and water for nature. The needs are intimately interlinked by size and scale. What Trinidadians don't see happening is the flow of wealth from rich to poor, and financing being made available to bridge the gaps to meet even people's basic needs. The provision of water and sanitation to more people is a serious concern.

Gender is not a separate issue in the Caribbean because the role of women in society is already strong, and there are strong women leaders who have institutionalised "gender mainstreaming."

Out-of-the-box thinking is more than just a cliché for Trinidadians. They know that, rather than following business-as-usual solutions, "business *unusual*" is needed to move forward. They feel that funding is inadequate, yet cannot afford to wait for funds for the situation to improve. They must go ahead with Vision 21 with any means they can, and have started to use local resources.

They need to find solutions quickly. Vulnerability to climate change and weather extremes is a special concern to small islands since there is little room to run from hurricanes and tropical cyclones. Islands such as the Maldives are already experiencing sea-level rise.

In conclusion, the Chair noted that contrasts are quite notable between the large states and Small Island Developing States (SIDS).

Audience Response

- What may be needed is a vulnerability index for SIDS. Small islands need water to promote any form of sustainable economic development, such as tourism. How can this particular economic sector be integrated? Lester Forde noted that marketing the Caribbean to tourists has been

done at the expense of local people's access to water. Tourists take a shower every time they go for a swim in the sea, while local people can't even get clean water to drink. On the other hand, in some areas, when new hotels are constructed, effluent from wastewater treatment plants is used for irrigating the associated golf courses. New, innovative and alternative wastewater treatment systems, such as constructed wetlands, are being implemented with the additional benefit of habitat creation.

- A speaker from Syria noted that the GAP project takes water away from them. There is a desperate need for a water-sharing arrangement between Turkey, Syria and Iraq. Olçay Ünver responded that Turkey agrees that the waters of the region should be managed as a shared resource, but it is not happening due to politics.

- The real issue is not promoting new scientific and technological solutions, but rather providing training in existing technologies for people from developing countries.

- We have heard of water as a commodity, but it is also a resource to be protected. Availability and access to information on water resources is an important tool. Most developing countries do not have the capacity to obtain the needed data and information.

Wrap-up Comments

- Pierre-Frédéric Tenière-Buchot expanded on the issue of benchmarking considerations. He noted that water is available to provide bottled water that is worth hundreds of times the cost of piped clean water.

- Lester Forde added that training and capacity are not the problem; the problem is sharing of experience among the small island states. Data needs to be very carefully benchmarked so that everyone *knows* that they are talking about the same thing.

Participatory Approaches

Pierre-Alain Roche, Agence de l'Eau, France

Participation, or rather lack of full participation in water resource decision-making, was a major issue under discussion in The Hague and came up again in Stockholm, where it was thought that the GWP Technical Advisory Committees (TACs) could play a major role. Various types of participatory processes differ in their applicability, depending on the context.

The term *public participation* is often used to refer to a process that is really nothing more than top-down communications. Consultations are another type of participatory process that tends to involve somewhat better interchange, including bottom-up feedback. There are larger public participatory approaches, such as those involving hearings on new policies, as well as public participation that includes public involvement in local decision-making.

Small, local communities are not the only ones needing representation. Basin-level systems also need some form of democratically selected and representative participatory groupings.

Adjusting the scale of a model is a source of potential problems. One cannot always just expand a successful model from the local scale to the regional, national or international scale, nor vice versa. Different methods are needed in each case.

3. Within the irrigation community, "more crop per drop" refers to a concerted attempt to reduce, reuse and recycle water required for crop production.

* The complete text of this presentation may be found in Part 2.

Also at issue is who decides on the breadth and level of participation. Those who pay want to have a say in the decisions taken. But that isn't sufficient. Consumers have an interest even if they don't pay, because they share the environment and have the same basic human needs.

Another issue is how to assess good practices in participatory processes. What are the measures of a successful model:

- (cost/benefit) effectiveness?
- durability or sustainability?
- degree of acceptance by stakeholders (i.e., finding out what the silent majority feel)?
- environmental effects?

Janet Herrin, Tennessee Valley Authority (TVA), USA

The Tennessee Valley Authority (TVA) is responsible for a complex watershed system involving 49 dams, with responsibility extending to habitat, navigation and recreation, among others, as well as water regulation and quality.

Success can be measured by how many people are involved in the decision-making process, as William Cosgrove said of the Vision.

There are two ways that TVA is encouraging public participation.

TVA is trying to get public input up to the highest level in their organisation (Board of Directors) on major decisions on land and water management. The Regional Resource Stewardship Council sounds out public concerns. Seven of its 20 members are named by the governors of the seven states involved, 5 represent the power distribution utilities, and the other 8 represent competing stakeholder demands. Council meetings also include an open public sounding-board session, and the minutes are always made public.

The second process that TVA has put into place to encourage public participation is the "watershed team" approach. This is another way to involve people at the grassroots level. TVA takes a backseat and helps out the local people once they've decided what their goals are. There are 12 watershed teams, consisting of engineers, scientists, communicators, etc. – all employed to work on issues identified by the local users. This is a new way of doing business for TVA, but it is working very well.

As a government agency, TVA sees its role changing from that of "command and control" to "facilitation," as well as a providing education and technical assistance.

In conclusion, WWC also needs to work more at the local level to assist the community in doing what they need to do.

Commentators

Guillaume Aubourg, PS-Eau NGO, France

Guillaume Aubourg discussed a process of increasing public participation in water resource management, which he has observed and been involved in, in both Senegal and Mali, since 1996. The process works at the community level and involves a partnership (Programme Solidarité Eau [PS-Eau]) including the local State authorities, community groups and user associations, as well as expatriate groups in France that play a major role in funding local improvements, in particular. It has been functioning quite successfully. Starting with a familiarisation phase, in which the principal

actors got to know one another and their respective needs, the plan has grown and became more deeply involved in resource management planning with the government agency involved. An outgrowth of the process has been the initiation of an idea to create a federation of local basin committees. One concrete product has been a survey, conducted in 2000, of all local water works assisted through expatriate action. This survey has served as a means of both highlighting success stories and sharing them with others.

Yavuz Ege, Director, GAP Regional Development Plan

Sustainable human development requires participation by its very nature, and this participation must mean the democratic and comprehensive involvement of stakeholders. This ensures their buy-in to planning and decisions taken during implementation, which might otherwise be opposed.

Turkey recently decided to prepare a comprehensive new development plan for Southeast Anatolia, and it was chosen to do this using a participatory approach. The team involved includes consultants, both national and international, as well as local participants and national NGOs and universities.

There are many interested individuals who do not belong to any organisation and could therefore not take part in the formal processes. The public media and facilitators are used to reach out and include their concerns. Target groups such as women, landless people and youth groups are also actively approached to obtain their views and hear their concerns.

Some parts of the plan are delegated to the stakeholders themselves, where they have demonstrated the capacity to take this on.

The participatory approach implies consensus decision-making, but allowance for dissenting reports is also provided for.

Victor Dukovny, Water Commission of the Aral Sea

As a representative of a formerly non-democratic system, Victor Dukovny has a particular concern to see effective public participation take place. All members of society who are truly interested must be given a chance to join in. Top-down and bottom-up processes must be applied at all levels of the hierarchy. No one can be left out or the system will fail.

Public awareness is the first part of the process, and the focus is on problems of water scarcity and quality. Schools are the best vehicle to get these messages across, but mass media are used in emergency situations when it is essential to reach everyone quickly.

Transforming potential enemies into partners is the objective. Each basin organisation includes interested members from at least four states. A water basin council listens to all concerns. A similar mechanism is found at the national level, as well as for the entire Central Asia region affected by or affecting the Aral Sea in any way.

The Water Commission is also starting up competitions to challenge people to demonstrate water efficiency and conservation. In this way, it has saved almost a half billion cubic metres of water a year.

The Chair concluded by noting that quite a spectrum of speakers had been heard from today, both geographically and otherwise, giving plenty to think about.

Audience Response

- The change from non-democratic to democratic governance is interesting. In the old system people were passive receivers of free service, and now must pay. How has this changed things? Victor Dukovny replied that things are different politically and economically in each of the five different states, so no generalities apply. The states are moving at different speeds to an open market economy, and some are still heavily regulated. For this reason, taxation formulae also vary significantly.

- This had been a very promising session as it shows that participation works, wherever it is tried. As Janet Herrin said, if people feel involved, it will work.

Water Emergencies

Loïc Fauchon

The Chair prefaced this presentation by pointing out that how we deal with natural or human-induced emergencies, such as armed conflict, and their aftermath in a water resource management situation is a question that has not yet been dealt with in any meaningful way during the development of the Vision or its follow-up. Today's presenter hopes to rectify that serious oversight by laying out some of the issues and potential solutions.

For this presentation, Loïc Fauchon noted that he was taking off his hat as a manager in a large water company, and speaking instead for an NGO in which he has been involved for some time in sub-Saharan Africa and Eastern Europe, dealing with issues related to emergencies and crisis response.

Emergency situations seem to be becoming more common due to conflicts between and within states. Also, there are climate disorders that may be worsening (or perhaps the media is simply making us more aware of these events). Population growth and consequent population pressure is also a contributing cause of increasing conflict and violence.

These realities can no longer be ignored. Faced with this situation, humanitarian organisations such as *Médecins sans frontières* (Doctors without Borders) have sprung into action. The common theme behind all of this is water – can we provide it for food production and preparation, for drinking water and for healthy, hygienic living conditions? When refugees are crowded into small areas due to conflict, they create stress on the local water resources – in many cases, beyond what can be borne. Humanitarian aid seems to forget this at times (such as in the situation in Albania and the former Yugoslavia in 2000, and a similar situation in Mozambique). Donor nations don't seem to be open to the real needs in these circumstances, and only send what they have a surplus of, whether it is needed or not.

Water sector professionals are needed to advise in these emergencies, so that safe drinking water systems can be put in place quickly.

Loïc Fauchon concluded by identifying a variety of roles that the WWC can play and has a duty to fulfil:

- The WWC should set up a think tank to evaluate the magnitude and dimensions of this problem. This think tank would need to work with other involved global organisations (both UN agencies and NGOs).

- There needs to be a charter committing the global community to take action.

- The WWC should examine technical issues in the context of providing a guidebook for emergency supply, storage and distribution of water.

- Training programmes are required.

- A promotional campaign will be necessary to spread the word.

- A proposal should be put forward for an emergency water supply task force or response team at the international level, to spring into action when and where circumstances dictate.

Audience Response

- What is the difference in the role of this think tank/task force and the UN Disaster Relief Organisation, the Red Cross and other international organisations that work in providing emergency relief? Don't they have the capability to do this? Loïc Fauchon responded that the UN has no specialised ability or interest in water as they do for food, health and so on. CARE has good water specialist capability, but none of the other NGOs do.

- The Water Supply and Sanitation Council has appointed a task force on water emergencies and is addressing much of what Loïc Fauchon has spoken about. We need to be more specific as to the actual needs so that overlap and inefficient action is not a result.

- A speaker from Japan congratulated Loïc Fauchon on an excellent presentation. In Mozambique people suffered twice from water: first from the flood effects, and second from the lack of clean drinking water afterwards. The 3rd World Water Forum in March 2003 may be an opportunity to take up this issue.

- A speaker from Africa said that action, not a think tank, is needed.

- A speaker from the Aral Sea area mentioned that some water-related disasters that need to be confronted are created by humans, citing an example of a flood resulting from a break in a natural dam that came into existence in an area where an earthquake had blocked a stream many years ago.

Final Comments

The floor was opened to anyone wishing to make final comments on any of the five presentations. One point was added:

- Hydro-informatics is an exploding field. It accepts information in any digitised form, which can then be used to make models and pass the results along to the stakeholders. In effect, this is both a new technical tool and a tool to promote participation.

Summary

The Chair summarised this session with the following conclusions:

- Massive attitude and behaviour change is needed – this is a fantastic challenge, but one in which other sectors have succeeded in the past.

- Leadership of a very high order is needed to make all this happen.

- The water sector needs significant intellectual input.

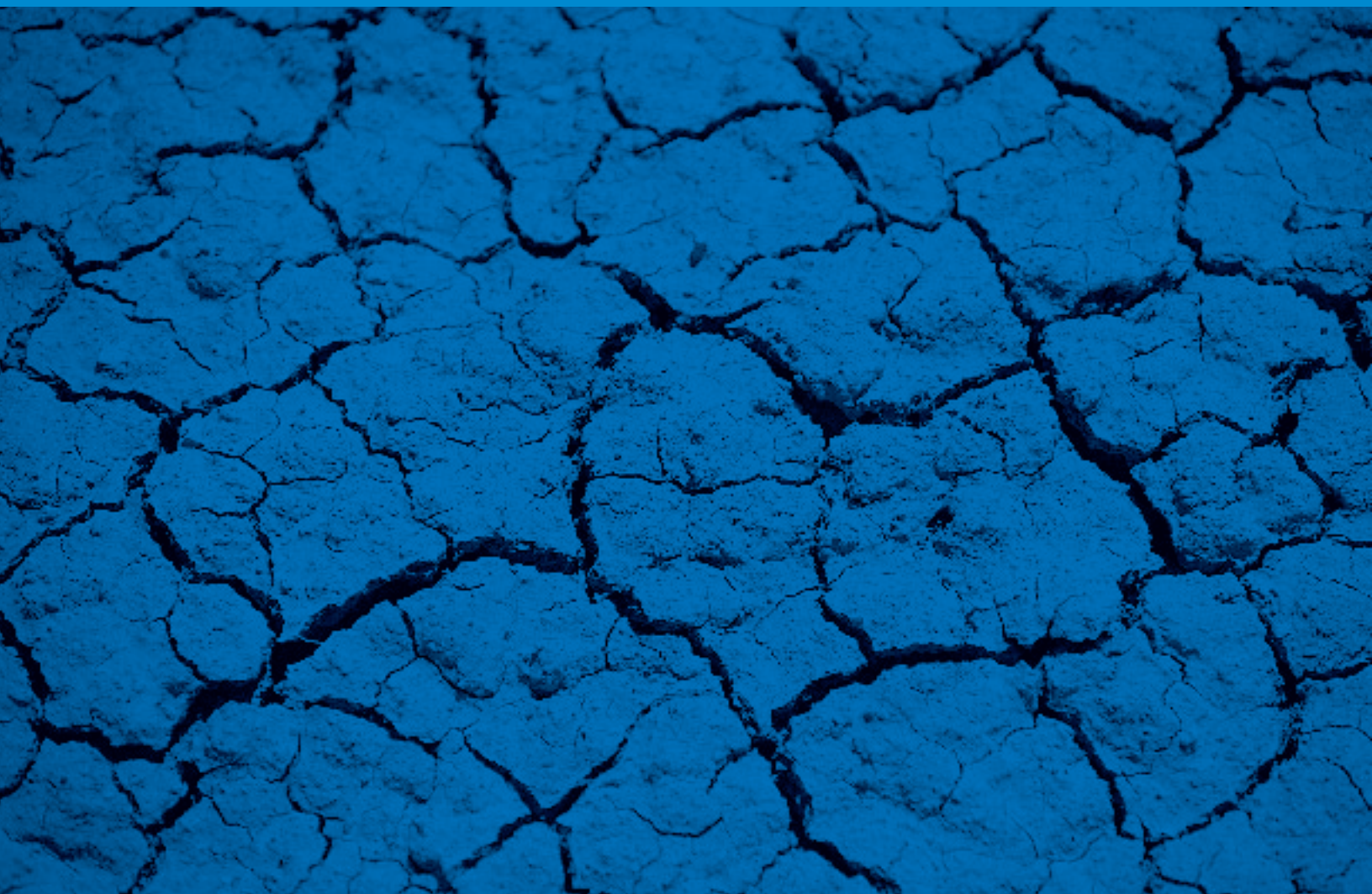
- We need to bring forward formal techniques for managing complexity and change, such as those that are commonly used in commerce.

Part 1

Technical Session 3: The Way Forward for the World Water Council

A frog if put in cold water will not bestir itself if that water is heated up slowly and gradually and will in the end let itself be boiled alive, too comfortable with continuity to realize that continuous change at some point may become intolerable and demand a change in behaviour.

Charles Handy, The Age of Unreason



Introduction

Mac Mercer, Interim Chair, Programme Committee

Mac Mercer explained that the third Technical Session would be delayed to permit time for the General Assembly to reconvene and hear the results of the vote for the Executive and Members of the Board of Governors. He also noted that the records of the first two Technical Sessions were available for comment and these were distributed in limited numbers but would also be e-mailed to those who did not receive a copy. Comments and changes were to be sent to Chris Morry, who was acting as rapporteur and editor.

Announcements

Mac Mercer noted that there were a number of important announcements to be made before the Technical Session presentations would commence:

King Hassan II Memorial Water Prize presentation by Dr. Mokhtar Bzioui of Morocco

This prize was initiated in Marrakech during the First General Assembly of the WWC. In Morocco, the average rainfall is less than 280 mm/year and, along with the growing population and uses of water, this will soon result in less than 500 cubic metres/year/person. Drought is a constant reality. The storage capacity of existing dams is decreasing due to erosion caused by extreme drawdown. Even so, they are able to make do for now thanks to these dams supplying sufficient water for irrigation. The Water Policy of 1967 was instituted by King Hassan II. This prize, which is in his memory, will be awarded every three years in an amount of US\$100,000 at the World Water Forum.

Prince Sultan Bin Abdul Aziz International Water Prize presentation by A. R. Al-Scheick

Saudi Arabia considers water to be its most important resource. In a country where the evaporation rate exceeds the rate of precipitation, how could it be otherwise? This international prize was therefore devised, and is intended to promote research on water resource management in areas of scarcity. The objective is to determine the best solutions for ensuring high quality water in arid areas. The prize consists of two parts: one for rewarding past work, and one for the encouragement of future work. A sum of money yet to be determined will accompany the medal and certificate awarded to the two recipients. They are looking for breakthrough research in providing for the water needs of arid regions.

Allons au Japon!

Evaporée à la Haye

L'eau tombe à Biwa

René Coulomb, 2001

WWC-TETHYS Virtual University Project presentation by M. Ahmed Charai

Despite the name of the project, the plan is real, not virtual, and consists of setting up education and training on water management. The virtual university concept was developed in co-operation with WWC and 22 Mediterranean universities, and is focussed in the universities of Aix-Marseille and Genoa. The themes of research to be undertaken will range from water supply and management to the treatment and management of waste entering the sea, and will include legal as well as technical issues. The concept is still in its early days of development and so the proponents would welcome ideas from interested individuals.

Jamil Al-Alawi added that the important thing about this proposal is that it provides immediate benefit and advice to developing countries with serious water resource problems, and which lack the resources and capacity to address these problems themselves.

Update on preparations for the 3rd World Water Forum

Kenzo Kiroki announced that the organisers of the 3rd World Water Forum, to be held in Japan, have already established an interim secretariat and hope to add staff in the coming months.

The topics most likely to be the focus of the forum are those that are crucial to many parts of the world, both today and in the future. Drought is already a key topic of concern, particularly in Africa and Asia. Lack of accessibly to clean drinking water and sanitation are of grave concern in many countries. In some regions, such as Japan and the countries of Central America and southern Asia, flooding is a major issue, and will certainly be discussed as a possible topic for the Forum. Water quality, which is increasingly being recognised as an issue and concern, will also be addressed.

The 2nd World Water Forum included, in addition to the Forum itself, an associated ministerial conference, and a water fair. Because this had significant impact on global decision makers such as Kofi-Annan, Madeleine Albright and the leaders of the G8, it is likely that the 3rd Forum will be structured along the same lines.

During the development of the World Water Vision, the Water in Rivers component was managed from Japan. There will be a carry-over from this to the Japan Forum, with a particular focus on Integrated River Basin Management (IRBM).

The tentative structure of the Forum is as follows:

- Policy
- Open Forum
- Commitment and Action
- Overview and Perspective of the Asia-Pacific Region

The thrust will be to go from Vision to Commitment and Action.

Some of the possible themes may be water and gender, floods, water in megacities, climate change, and sanitation.

The organisers for the 3rd Forum have conducted a census of the convenors in The Hague and were pleased to find that most are willing to take part in the pre-planning session. They will surely take advantage of the experience of the previous Forum organisers.

Regional actions will be pursued in order to help prepare for the 3rd Forum; for example, the conference already staged to address the Mozambique flood.

In preparing for the Forum, the organisers will also make extensive use of a Web site that will be accessible beginning in 2001.

Public relations efforts to date include a weekly e-mail newsletter, which will include developments throughout the world as well as updates on Forum preparations.

Lead-up to the Forum will also include the 2001 International Conference on Freshwater in Bonn, and Rio+10⁴ in 2002.

Audience Response

- Groundwater and fossil water needs to be the focus of some part of the Forum; it was not dealt with in The Hague. It was noted that this is already planned but was accidentally omitted from the slides presented.

- Where will the Forum take place? Kenzo Kiroki responded that many Japanese cities want to host the Forum and it is going to be decided based on the best venue, including the water culture of the area.

- At the 2nd World Water Forum, water and food security didn't receive sufficient attention. This should be a major focus in the next Forum. The response was that the organisers agree that it is an important issue and will be meeting weekly to plan what elements of the global issue of water and food security will be dealt with, since the subject as a whole could be overwhelming.

- The International Water Management Institute (IWMI) will hold a meeting on Water for Food and Nature from December 13-15, 2000 in Colombo, sponsored by such organisations as GWP, FAO, ICID, and IUCN.

- It was noted with satisfaction that Water and Gender is assuming a prominent role in the plans.

- UNESCO will organise a symposium in Marseilles on water management for megacities. This should be a good lead-in to the Forum. Integrated water management at the basin scale is being worked on by the International Network of Basin Organisations (INBO) and GWP.

- Japan is a leader in desalination and this should assume a larger role than in 2nd Forum. A symposium on desalination, which is taking place in March 2001 in the Middle East, could be a good stepping stone to the Forum.

- A speaker from an arid region felt that water scarcity in such areas is one of the biggest problems the water community must face. Could there be a concerted effort to focus on this subject, as was done for the Vision in lead up to 2nd Forum?

- Most of the convenors at the 2nd Forum agreed to host sessions in the 3rd Forum, and water education and training should also be a cross-cutting theme.

- Could the Vision be pushed out another 25 years for this Forum, especially on climate and energy issues?

- A new dimension could be combating the destruction of vegetation to protect underground water and combat climate change.

Technical Presentations

Chair

Mac Mercer

Mac Mercer introduced and acted as Chair for the third Technical Session. Whereas the first two sessions looked back at the unresolved issues from The Hague, and then at the way forward for world water in general, this third session looks at the way forward for the World Water Council. Together, these sessions will guide the new Board in developing WWC's work programme. In particular, the presentations in this session will address the WWC's relationships and communications.

Relations with Civil Society

Jerome Delli Priscoli, US Army Corps of Engineers*

We are now down to the issue of how the WWC relates to civil society. More than 5,000 people took part in the 2nd World Water Forum, and this showed us how many voices there are to be heard.

A historical examination shows how long the complex relationships between the political and technical communities have been developing with regard to water management. It is not an exaggeration to say that these relationships have been evolving since the earliest days of civilisation. In fact, irrigation facilitated the emergence of early civilisation. Thus the interface between civil and political society cannot be seen in isolation from water management. Water management forces us to balance rights and responsibilities, a task in which civil society must be involved.

Social ethics in water policy is another reason why civil society has an essential role to play in water management. Ethical considerations ought to be involved in every element of water management decision-making: water as a common good, water as a right, water as a social justice issue – these are all considerations. Conflicts over water are less common historically than is co-operation over a shared resource.

We also need to find a path between *empowerment* and *alienation*, and between *participation* and *globalisation*. In this age of information, the average person is better able to counter the information being used by the experts with an educated understanding based on knowledge from a variety of sources. There is a need to see the tables turned accordingly, in order to permit members of society an equal role in decision-making, with the experts representing sectoral interests. People need to be included when decisions are taken that intimately affect them, such as access to and pricing of water that is so basic to survival and their livelihoods. The paternalism of the past won't work anymore.

We need to help engage people in the global debate on how to "design" our ecology. What should nature be for us? Little of the earth is now truly natural. How far can we take this? Trying to preserve a state of nature that is unaffected by humanity is as unethical as ignoring the human impacts.

3. Follow-up to the UN Conference on Environment and Development (UNCED), held in Rio (1992).

* The complete text of this presentation may be found in Part 2.

Things WWC should do:

- The WWC, as a global water policy think tank, needs to broaden NGO participation. It needs to develop an outreach plan and facilitate participation for those without sufficient means to participate otherwise.

- WWC needs to be more transparent and not paternalistic. Open meetings of the Board of Governors would be a good start. Executive decisions should be open to comment and criticism.

- WWC needs to actively seek civil society participation and respond to the criticism that it is the grey old elite. It should sponsor new forums for increased dialogue.

- WWC needs to focus on implementation, in addition to open dialogue and debate, and engage civil society in this.

Water is humankind's great learning ground and has influenced the formation of society. The WWC has a role to facilitate the partnerships needed to form a crossover between the professional elite and civil society. Above all, it must promote democratic principles in water resources management.

Commentator

Lilia Ramos, Approtech Asia, Philippines*

A discussion of the WWC's relationship to civil society is timely and important. The Ministerial Declaration at The Hague, the Summit of World Leaders, Vision 21, and the Framework for Action are all manifestations of this.

In The Hague, the assembled ministers said they would work with civil society to develop a water culture. WWC needs to assist them in developing relationships and partnerships.

The Summit of World Leaders, convened by the UN in September 2000, issued a Millennium Declaration that included a commitment to halve the number of people lacking fresh water.

The GWP's Framework for Action embraced a broad cross-section of NGO views.

Vision 21 also focussed on synergy of action, and advocated collaboration between government and civil society. The Water Supply and Sanitation Collaborative Council (WSSCC) has created a working group with the International Secretariat for Water (ISW), linking people in the interests of better water resource management to meet the needs of humanity.

Lilia Ramos took a moment to speak from the perspective of an NGO (Approtech) that focuses on appropriate technologies, one of the largest NGOs in Asia. From Approtech's perspective, WWC should strengthen relationships with NGOs and others in civil society – groups both large and small. Credible, accountable and transparent NGOs should be sought out, not troublemakers. It is good to see that the new Board will include a woman from a Turkish NGO. This is a positive sign that the WWC is opening up to accommodate a gender balance and the perspectives of NGOs.

NGOs provide the pipeline to the people. They generate and enhance capacities. They network well with one another. They establish mechanisms, including financing, to make water available to people. All of these are services that WWC can ill-afford to ignore.

Recommendations for the triennial plan:

- NGOs fit in well with the work of the Council.

Therefore, WWC should initiate a comprehensive study of who is doing what in civil society.

- WWC should encourage identification of best practices so these can be replicated in other settings.

- WWC should encourage international co-operation on technology transfer.

Audience Response

- Hans Van Damme indicated that he appreciated Jerome Delli Priscoli's presentation very much, especially his pleas to get on with implementation. All of these conferences keep talking but not doing. One way of ensuring that progress to action takes place is to keep the Vision alive as the centre-piece for future dialogue and action. This stopped in The Hague, for all intents and purposes, and we need to re-open the dialogue. The bottom-up approach within WSSCC is intended to make it possible for local issues to gain equal,

not greater, prominence with the global. WWC should keep these consultations going in the interest of early implementation.

- Rodolfo Ogarrio pointed out that the Mexican Water Advisory Council is actively pursuing two aspects of what has been discussed here: support for strategic change in water management, and a national programme for water culture and ethics. The Mexican government realises that no action can be effective unless it is participatory.

- With these presentations, WWC is being guided the right way. One thing is unclear, though. What is the current thinking with regard to water as a common good, and in relation to water and social justice?

Jerome Delli Priscoli

responded that UNESCO has convened a water and ethics group that has looked into the issue of water and human dignity, for example. But this is much too complex a topic to really get into at this time.

- Bill Turner of the United States noted that he found Jerome's paper profound and informative. He has worked with USAID on water development and knows that the rural poor and communities are not well served by large global NGOs and aid agencies' programmes. What is missing is private enterprise at the local level. He cited the example of a well in Tunisia that has operated successfully and sustainably for 1,350 years because the person who operates it makes a profit and therefore is encouraged to maintain and manage this precious resource wisely.

"What made the deepest impression upon you," inquired a friend one day of Lincoln, "when you stood in the presence of the Falls of Niagara, the greatest of natural wonders?" – "The thing that struck me most forcibly when I saw the Falls," Lincoln responded with characteristic deliberation, "was where in the world did all that water come from?"

Author Unknown

* The complete text of this presentation may be found in Part 2.

Communication with the Media and the Public

Juliet Heller, Hoffman and Hoffman, USA

It was Hoffman and Hoffman Public Relations' mission to assist in developing a well-balanced communications strategy for the 2nd World Water Forum.

They arranged for leading journalists (400 organisations and 1,000 journalists) to take part in the event. A number of public service announcements were produced in a variety of media forms. News releases were prepared and released in appropriate hotspots around the world.

They chose 4 messages: the water gap, the poor pay more, the world's rivers are dying, and sweeping changes are called for by WWC. Two additional news releases were issued in The Hague to pick up on the flow of current issues as they arose: one by the Prince of Orange, giving his perspective on the event; and one on the specific topic of groundwater.

An intensive media campaign was conducted in four centres around the world.

Finally, the media were invited to attend the Forum and were provided with daily news updates. Four hundred interviews were arranged, and 400 journalists from developing countries were sponsored by the Netherlands to attend the event. This ensured coverage in local languages and in parts of the world where water is a critical issue – areas which might otherwise have been in an information vacuum.

It was estimated that the television spots reached one billion people each time they were broadcast on CNN. In total, it is estimated that 10,000 news stories were produced world-wide. Major magazines, such as *Harper's* and *Time*, produced feature stories on the Forum.

Commentator

Ghassan Ejeh, International Desalination Association (IDA)

Communicating our message to people is our most important task and we seem to have done a pretty good job of reaching the informed and wired. But we don't know how well we have reached the people in places where it counts: the poor in local communities in developing countries.

As an example from his own experience, Ghassan Ejeh noted that Damascus has grown from a population of 300,000 to 3 million, and where it was an oasis in the recent past, it is now severely affected by water shortages. People's expectations are high and will rise more and more as we go toward the 3rd World Water Forum. We need success stories to convince people that the situation is not hopeless. Also, we need immediate action; success stories, alone, are not enough.

Mac Mercer concluded that the importance of communications lies in the fact that, by influencing the public, they in turn will influence the politicians, who are in the best position to take effective action.

Relations with Decision and Policy Makers

H.E. Kamal Ali Mohamed, Minister of Irrigation and Water Resources, Sudan

The last two days have set out to lay a foundation for the WWC's future. This is important because the high expectations that have been created among the public can be met with our dedication. Human needs for water – for drinking, growing and preparing food, cleaning, etc. – must be in the forefront. In The Hague, the focus was securing water to meet basic needs, which meant solving the numerous problems now facing us. We have to move toward water pricing to ensure sustainability. Governments will play a major role in this, but the private sector must be encouraged to become involved by making their participation financially attractive. The international community's role is to provide global and regional analyses, such as those produced by the World Bank on water requirements in sub-Saharan Africa.

Stakeholder participation solves part of the problem, but not all of it. Seventy to 90 per cent of water is used for irrigation. Infrastructure costs are borne by governments, and international institutions can assist developing countries to meet these needs.

Commentator

Chris Tydeman, World Wide Fund for Nature, UK

Chris Tydeman noted that he would react to the main presentation and expand on the subject from the perspective of the World Wide Fund for Nature (WWF).

From an NGO perspective, he really appreciated Jerome Delli Priscoli's presentation. Following instructions from the Chair, however, he promised to try to be controversial in his remarks on the other presentations, as well as the institution of WWC, itself.

The WWC is an NGO of sorts, and therefore WWC should think more about talking with its fellow NGOs. It seems to be mainly comprised of grey-haired men in grey suits. WWC desperately needs to be more inclusive and representative.

NGOs would welcome a closer relationship with WWC, which didn't happen at The Hague. Participatory processes were sorely lacking. Too few geographic regions are represented on the Council. He expressed concern about how well this Council, with its weakness in representative composition, will be able to speak to these issues.

WWC needs to establish concrete targets. Organisers for the 3rd World Water Forum in Japan should take note; the 2nd World Water Forum failed to do this. The steering committee for the Ministerial process in The Hague could not get targets agreed to because of the late start and the fact that NGOs were only invited in at the last minute. One needs to set this kind of process up very early and keep it open and transparent. He expressed disappointment that the UN Freshwater Caucus (NGOs) had no real place in The Hague. The WWC needs to strategise on which groups of NGOs it wants to talk to. Not all major groups were included, and NGOs and unions were grouped together, which created problems.

When we talk of full-cost pricing, it means covering all costs, not just the water. There is an ongoing failure to recognise the cost of ecosystem goods and services. Peat systems, for example, are great carbon sinks and need to be protected. We cannot choose to ignore the environment. It is perilous to humankind to do so.

The discussion on irrigation has also failed to deal with a number of realities. Not all agriculture produces food. The growth of cotton, for example, takes up 4 per cent of agricultural land and demands 26 per cent of the pesticides used in agriculture, as well as a significant share of irrigation water in some of the most arid and drought-prone regions of the world.

The presentation on media relations seemed to miss the mark. You can raise awareness, but what we really need to do is to increase understanding.

Audience Response

- The view was expressed that Chris Tydeman seemed to be hoping for a Forum that is non-confrontational. Friction is good. For example, Chris Tydeman took aim at the cotton growers, but they do try to limit pesticide use and are in the vanguard of use of genetic modifications to produce plants that will reduce pesticide use further.

- Making use of the media is very important, but the target audience needs to understand the language and thus we need to translate messages into many languages. Social issues should also be taken into account; for example, every Friday people hear the message in Islam not to waste water because the Koran forbids this. Also, in developing pricing formulae, we need to be sensitive to the capability of applying user charges to raise awareness of the true value of water. Water police are used in Saudi Arabia to deal with inappropriate uses of fresh water. Greywater separation is also now mandatory in buildings over 6 storeys high.

- Juliet Heller agreed that the issue of language is very important. Of equal importance is the need to use appropriate media. Sometimes radio is the best tool in regions where television is restricted to local programming, and stations such as CNN are not available. Chris Tydeman agreed that friction is an excellent motivator for change, adding that he tries to generate it for this reason. But The Hague meeting did not represent constructive friction; it wasted time arguing about things that shouldn't have been an issue at all. NGOs are good at causing friction and making things happen. Agriculture and food are usually used synonymously. We need to think about other agricultural activities that are large water consumers, but are not aimed at satisfying basic human needs, such as the production of cotton.

- Kamal Ali Mohamed noted that cotton is partially an edible crop (for edible oil production and as feed). Besides, it is a cash crop that permits people to buy water for their household needs. Water pricing cannot provide for the full costs, including environmental costs, because it would not be possible to provide equitable distribution to the poor.

- Lester Forde noted that in disseminating Vision 21, they couldn't have gotten their message across without it being translated into many languages. He added that the friction at The Hague among NGOs pre-dated that meeting, as they arrived in a confrontational mode. In his opinion, the Council is too overloaded with people supportive of large infrastructure, and there is not enough representation of ecosystem interests and human concerns.

Relations with Other Water-Related Organisations

Relations with Professional Associations

John Pigram, International Water Resources Association (IWRA) World Water Congress*

There are many water-related organisations around the world and more are starting up almost daily. It's getting impossible to keep up with them all. There are private associations, university-linked organisations, UN bodies, etc. The WWC is superimposed on top of this, and there seems to have been a certain amount of failure to communicate with the others in the field. A classic example was the timing of the 2nd World Water Forum, on top of the previously scheduled International Water Resources Association (IWRA) World Water Congress in Australia.

Obviously WWC has to begin working more closely as a conduit among these organisations, and not compete with them. As President of IWRA and a Governor of the WWC, John Pigram expressed the fervent hope that efforts will be made to ensure that this bridge is formed, especially at the 3rd World Water Forum and the 11th IWRA World Water Congress.

Relations with Educational and Research Organisations

Mathieu Pinkers, Wageningen University, Netherlands

Universities play a special role in capacity building and linking policy and practice. In tapping this resource, WWC has to deal with individual researchers, research groups, etc., and different approaches are needed in each case. Research capacity building implies monitoring and dissemination. Educational capacity building requires several support mechanisms, including human resources, institutional capacity, financial resources, etc.

Two operational options should be pursued: international and national research policies. The first priority is to improve links and information systems. The second task is to develop the support needed.

Networks play an important role:

- *Horizontal networks* link like organisations (e.g. universities).

- *Vertical networks* link people at different levels and in different disciplines who share a common goal.

- *Information networks* are more and more common in this field due to advancements in the Internet, and other advanced means of information dissemination.

- *Training networks* provide common training to people working in a specific field of water management.

Mathieu Pinkers expressed the hope that this framework offers WWC some possibilities for future direction. Fleshing out the framework and policy end of it should be a WWC task for the coming work programme.

* The complete text of this presentation may be found in Part 2.

WWC/GWP Relationship

Khalid Mohtadullah, Executive Secretary,
GWP, Sweden*

Khalid Mohtadullah remarked that it was quite unfortunate that not all the WWC Board and Executive could be present at this time, due to scheduling compression and conflicts, as it is the matter of concern that confusion continues to exist between the GWP and WWC, raised in The Hague, which is the subject of his presentation.

Margaret Catley-Carlson, who recently became the Chair of the GWP, has expressed the hope that, with the appointment of the new Board of Governors in the WWC, an improved relationship will be facilitated.

Unless there is synergy between them, there would be no room for two such similar organisations to exist. There is an urgent need to strengthen relationships between the two organisations and to create a congenial working relationship.

The GWP sees its primary niche is Integrated Water Resource Management (IWRM). It is constantly mapping its demand, facilitating partnerships and mobilising resources for IWRM actions at all levels.

But of course GWP is only one of the players providing these services to assist developing countries to move forward. There are other key actors in the regions and countries who actually implement IWRM actions and provide the necessary enabling environment.

GWP sees its strength in its regions (eight currently, with China soon to be added). Complementarities exist with several other bodies, including the WWC.

In order to overcome barriers to change, GWP is trying to promote good practices and build strategic alliances. The GWP-WWC relationship fits into this plan.

Khalid Mohtadullah expressed the feeling that the WWC should stay with the strategic global issues and leave the translation to action to others. At the Forum, he felt that the Framework for Action (FFA) added tremendous profoundness to the Vision. The FFA arose from a grassroots participatory process and this gives it particularly strong resonance with regard to the issues at hand.

If there had been better co-ordination in the past three years, the successes of the triennial report would have been many-fold more. On the other hand, in some ways the FFA is actually an extension of the Vision and considerable credit could justifiably be claimed by the WWC. The same can also be said for the work of other organisations; many of the things they are doing or have done have been prompted by groundwork laid by the WWC.

The GWP agenda

GWP and WWC need to establish an optimal working relationship. The GWP will continue to pursue its priority of IWRM, including the essential building blocks for its implementation.

The WWC agenda

GWP thinks that the FFA should be validated by the WWC, and that the WWC should suggest changes it feels are needed so that the two organisations would effectively have one action agenda. It would cause confusion and

inefficiency if another separate framework for action under the WWC were to emerge.

There is a substantial need for more and better-focused work at the ministerial and policy levels to enable IWRM. This is an area where WWC can play an important role.

Finally, Khalid Mohtadullah noted that reciprocal membership on each other's Boards is vital and will help strengthen communications and links.

Mac Mercer, in responding to the presentation, agreed that it was indeed unfortunate that the full Board couldn't be present to hear this presentation and participate in the follow-up discussions, but noted that he will meet with the new Board and have the chance to discuss what was heard.

Commentator

Lester Forde, Forde Consulting Engineers,
Trinidad and Tobago

Lester Forde agreed with a lot of what was heard, but differed on a couple of other issues. During development of the Vision and Framework for Action, the Council was supposed to operate as the superior body, but this didn't happen. Consequently, the two parallel activities were not well co-ordinated with one another. The Water Supply and Sanitation Collaborative Council (WSSCC) pre-dated both GWP and WWC. This also created frictions since they had a pre-determined agenda to follow that only partially coincided with the agenda of the WWC in developing the World Water Vision, and of the GWP in developing the Framework for Action. Funds have been excruciatingly slow in trickling down through these processes and they must therefore be used very wisely and efficiently. Though the GWP is not an implementing agency in and of itself, many of its members are. There is a need to give credit where it is due.

The Associated Programmes of the GWP need to be built upon by research groups and international organisations. There also needs to be more broad-based involvement in terms of geographic and NGO representation. As it stands now, it looks like the deck has been stacked in favour of a certain set of priorities. The WWC needs to better identify its role and work on its governance problems. Transparency is an important concern. Finally, as a spokesperson for small island states, he noted that there are 60 small island states in the UN and each carries a vote, so it is vital to keep them included and fully involved in these processes.

Audience Response

- Have GWP and WWC ever adequately discussed their respective roles and responsibilities? Khalid Mohtadullah responded that there is ongoing discussion between the two bodies, but it seems it has not always been easy to get a response from WWC. For example, he reiterated that he had felt this occasion would be a good opportunity for the dialogue with the WWC Board to be continued, but this hasn't happened.

- The presentation on capacity building shows how much future work is needed. Without well-trained professionals, we cannot achieve our objectives.

- This ongoing debate is interesting because both IWMI and the Southern Africa Technical Advisory Committee (SATAC) of the GWP look at water from the basin paradigm, but at the country level. Where do GWP and WWC stand in this regard? The GWP is well set up that way, but how do countries interface with WWC? What is the link between GWP and WWC at the country level?

* The complete text of this presentation may be found in Part 2.

Role of WWC Regarding Upcoming Forums

Dublin+10⁵ event

Gerhard Naschold, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ): International Conference on Freshwater, Bonn, December 3-7, 2001⁶

The International Conference on Freshwater is considered to be the "Dublin+10" event, looking back over the years since the Dublin Conference to measure progress and identify areas where progress has been lacking. This important international gathering will focus on the global water crisis of today and will identify targets of the international community to combat this crisis. It will also serve as a stepping stone to Rio+10. Review of progress and preparation for UNCED 2002 (Rio+10) is very much a part of the rationale for holding the conference. Two German ministries will be the organisers: the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and the Federal Ministry for Economic Co-operation and Development (BMZ). The conference will take place from December 3-7, 2001, in Bonn. National and international governmental and NGO participation is being encouraged. "How" is the motif. The conference will be focused on implementation. It is intended to make as much use as possible of examples of good practices, and to concentrate discussions on the question of "how" to undertake hands-on measures.

Dublin (1992), Rio (1992) and CSD 6⁷, along with the WWC meetings in Marrakech and The Hague, are the precursors to the Bonn Conference.

Results of the 2nd World Water Forum and the United Nations Millennium Declaration are the immediate stepping stones that will be followed at Bonn. Rio+10 and the 3rd World Water Forum will receive the output and advice generated in Bonn. A review and conclusions on progress since Rio, as well as recommendations for future priorities, will form an anticipated Bonn Statement.

The website for further information is <www.water-2001.de>

[Editor's note: Lester Forde took over as Chair of the meeting at this point, as Mac Mercer left to join the first meeting of the new Board of Governors, already in progress.]

Rio+10 and the World Commission on Dams

Jean-Yves Pirot*

Jean-Yves Pirot prefaced his comments by noting that IUCN has a strong interest in co-operation with the WWC, and that his presentation would point to a number of areas where the two organisations might benefit from co-operating with one another.

IUCN and the World Bank facilitated creation of the World Commission on Dams (WCD) to respond to its members' resolutions on this topic at the first World Conservation Congress in Montreal (1997). Nelson Mandela will officially make public the final report of the WCD on November 16, 2000, in London. It is expected to focus on criteria and guidelines for both the review of existing installations and the assessment of potential new infrastructure developments. The Commission heard 900 submissions from 80 countries, and carried out 10 detailed case studies and 17 thematic reviews. During the course of its work, the Commission held 4 intensive regional consultations with 1,500 experts and spokespersons for stakeholder groups.

The WCD has set a new standard for transparency in all of its processes – not just in its consultations, but also its deliberations. In Amman in October 2000, at the 2nd World Conservation Congress, IUCN agreed to set up a task force on follow-up to the WCD report. IUCN would like to see WWC take an active part in this process by participating at a forum on the WCD guidelines in February 2001. WWC should examine the full report and submit its thoughts.

On the subject of Rio+10, UNEP, the World Bank, the secretariats for the Commission on Sustainable Development, the Convention on Biological Diversity and others have undertaken to conduct analyses of how well the water resource issues in Agenda 21 have been addressed. IUCN would like to work with the WWC on this analysis. The Earth Council, which also took place in Amman on the borders of the World Conservation Congress, looked at Rio+10. Species extinction, rationalising diffuse global environmental institutions and frameworks, and environment and security were key themes.

Freshwater ecosystem security underlies global social and economic security. The WWC should make the ecosystem approach a topic for follow-up from the Vision. The WWC can make thematic contributions to other forums, even if outside of its immediate agenda. Finally, the WWC needs to become a stronger advocate for sustainable and equitable water management.

5. Follow-up to International Conference on Water and the Environment (Dublin, 1992).

6. This conference should not be confused with the 2001 Berlin World Water Congress, which will take place under the auspices of the International Water Association, October 15-19, 2001.

7. Commission on Sustainable Development, 6th session (1998).

* The complete text of this presentation may be found in Part 2.

Report on the 10th Stockholm Water Symposium

Ulf Ehlin, Stockholm International Water Institute (SIWI)

This event will be the focus of World Water Week in Stockholm in 2001. The Stockholm Symposium series is meant to be an annual gathering place for formal and informal meetings on a wide range of water resource issues. In 2000, over 900 participants from 100 countries took part. The WWC will co-convene two sessions in 2001.

The organisers' approach is to avoid overlapping with events and themes of other organisations, and to focus on science through policy to practice. Water pollution abatement has been a subject of special interest. What does it mean when we've polluted our rivers and groundwater beyond use? A second subject is urban water and sanitation. Also examined are alternatives to government delivery (e.g., private sector and self-help).

Water management is far too fragmented, leading to an increasing environmental debt. Sectorisation is at the core of the problem.

A variety of strategic actions are emerging to resolve this problem:

- Integration at all levels
- a water pollution focus
- rejection of passive concepts as unworkable (what is needed is abatement)
- rainwater harvesting
- education

The overall conclusion is that water security requires a radical shift in thinking. The water community needs to be more integrated into the rest of the environmental community. The deliberations and resolutions taken at The Hague have been completely unheard of in subsequent environmental meetings, such as that held recently in Malmö.

There is a pressing need to direct science to the most critical issues, such as the issue of precipitation over land as a resource ("green water").

Mexico and South America/WWC Joint Conference on Water

Rodolfo Ogarrío and Salvador Aguilera Verduzco, Mexico

Planning has begun to hold a joint Central and South American conference in 2001 in Mexico. The need for such a focussed meeting was discussed both at the Americas Water Roundtable, held under the auspices of the WWC Western Hemispheric Bureau in Montreal in July 2000, and previously in The Hague.

The focus of such a meeting would be Towards Action on Water in the Americas in the 21st Century. Its aims would be to promote better co-operation among the many diverse players within the region, and to introduce the WWC to the unique problems in these countries. It would also serve as part of the preparations for 3rd World Water Forum. The Mexican National Water Commission and the Consultative Council on Water are prepared to host this meeting. As background, there have already been a number of previous seminars involving many countries from Central and South America, and more events are taking place all the time. For example, a related congress is planned in October, 2000 with 1,000 international participants, many from Central and South America.

A major concern is to make IWRM a reality and to increase stakeholder participation. Mexico's Water Consultative Council was instituted to promote public participation in moving toward the strategic changes in water resource management, and to promote the evolution of a water culture and associated ethics.

It is currently proposed that the conference revolve around four themes:

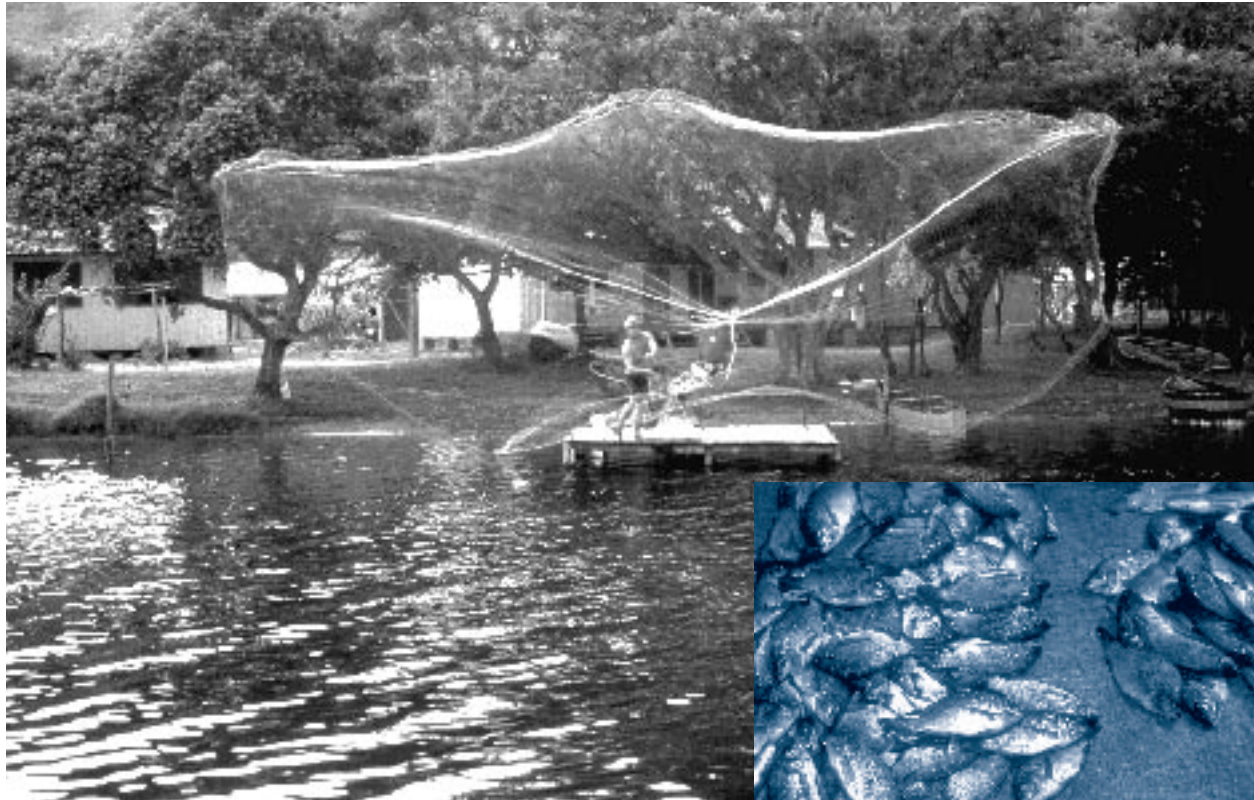
- IWRM of catchment basins and aquifers
- Institutional and intersectoral integration
- Civil society and private sector participation
- Cost and pricing

Canada and the United States are committed to assisting with staging the meeting.

Roundtables (one for each of the four topics) will be the framework for the symposium, with keynote speakers on each theme. Governments, NGOs and stakeholders will all be invited to participate. It is currently planned that this will be a three-day meeting.

*Don't throw away the old
bucket until you know whether
the new one holds water.*

Swedish Proverb



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Audience Response

As acting Chair for this session, Lester Forde took the opportunity to suggest that the Caribbean should be separated as a region unto itself, rather than be grouped, as is often the case, with dissimilar Central American or South American continental countries. The organisers of this proposed meeting, for example, have it linked with southern Mexico and Central America, a region with which the Caribbean islands have little in common when it comes to water resource issues.

One question was received from the floor:

- With all these ministerial conferences happening, what is the role for WWC in the Bonn meeting, which is really more of a ministerial conference with NGOs only invited to observe? Gerhard Naschold suggested that perhaps this should be asked of the Executive of the WWC. The steering committee is still working on content and revisions, is likely to be doing so up until November, 2000. So if the WWC wants to take a more prominent role, it should make a submission to do so. Lester Forde added that the results of, and progress made at, The Hague should at least not be forgotten in this case, as seems to have been the case at other subsequent meetings.



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Conclusion

With these final comments, the Technical Sessions were concluded and the acting Chair thanked all those who had stayed until the end of the session and contributed their comments and ideas.

Part 2 – Appendices

Technical Sessions Programme

*Water, water, everywhere,
Nor any drop to drink.*
Samuel Taylor Coleridge
(1772-1834),
The Ancient Mariner.



Introduction

- 08:30 **Welcoming Remarks**
H.E. Dr. Mahmoud Abu-Zeid, President, WWC
- 08:35 **Introduction to the Technical Sessions**
Malcolm Mercer, Acting Chair of the Programme Committee

Session 1

World Water Vision – Unresolved Issues MPM Auditorium, Pharo Palace, Marseilles October 18, 2000

Which issues, underlying the major problems and dilemmas in the water field, both societal and technical, were not addressed, or were not sufficiently addressed, at the 2nd World Water Forum in The Hague?

The results of the consultation of WWC members and over 50 water stakeholders.

- 08:40 **a. Results of consultation with members on topics**
presented by Malcolm Mercer, Acting Chair of the Programme Committee
- 09:00 **b. Panel Discussion:**
Chair/Facilitator
William Cosgrove, Former Director of the Vision Unit
- Panellists:**
- Water and Nature: Chris Morry, IUCN, Canada
 - Water for Food and Rural Development: Mathieu Pinkers, Wageningen Univ., The Netherlands
 - Water and People: Hans Van Damme, WSSCC, The Netherlands
 - Water and Gender: Begum Shamsun Nagar, WID gender specialist, Bangladesh
 - Private Sector: Mr. Charles de Maud'huy, Générale des Eaux, France
- 10:30 *Coffee Break*

Session 2

The Way Forward for World Water MPM Auditorium, Pharo Palace, Marseilles October 18, 2000

Chair/Facilitator
Tony Milburn, International Water Association, UK

- 11:00 **2.1 Financing and Valuing Water**
- Presentation:**
John Banyard, Severn Trent, UK
The UK privatisation economic model, its success and failures
- Comments:**
P-F Tenière-Buchot, Senior Advisor, UNEP, The Netherlands
- 11:30 **2.2 Benchmarking/Monitoring and Indicators**
- Presentation:**
Janos Bogardi, UNESCO Division of Water Sciences, France
- Comments:**
Mohamed Ait-Kadi, Ministry of Agriculture, Rural Development and Fisheries, Morocco
- 12:00 **2.3 Intersectoral Integration**
- Presentation:**
Dr. Olcay Ünver, GAP, Turkey
International/National/Local Integration
- Comments:**
Lester Forde, Forde Consulting Engineering, Trinidad and Tobago
Liu Zhaoyi, WUHEE, China
- 12:30 *Lunch*

13:30 **2.4 Participatory Approaches**
Presentations:

Pierre-Alain Roche, Agence de L'Eau, France
Janet Herrin, Tennessee Valley Authority (TVA), USA

Comments:

Guillaume Aubourg, Ps-Eau, France
Yavuz Ege, Director of GAP Regional Development Plan
Victor Dukovny, Water Commission of the Aral Sea.

14:15 **2.5 Water Emergencies**
Presentation:

Loïc Fauchon, CEO Société des Eaux de Marseille, France

14:45 *Closing*

Session 3

**The Way Forward for the World Water Council
University Amphitheatre, Pharo Palace, Marseilles
October 20, 2000**

08:30 **Introduction and Brief Report
on Sessions 1 and 2**
by Malcolm Mercer, Acting Chair
of the Programme Committee

08:40 **3.1 Announcements**

- King Hassan II Memorial Water Prize: Mokhtar Bzioui, Morocco
- Prince Sultan Bin Abdul Aziz International Water Prize: A. R. Al-Sheick
- WWC-TETHYS Virtual University Project: M. Ahmed Charai
- 3rd World Water Forum: Mr. Kenzo Hiroki

09:30 **3.2 Relations with Civil Society**
Presentation:

Jerome Delli Priscoli, U.S. Army Corps of Engineers, Civil Works

Comments:

Lilia Ramos, Approtech Asia, Philippines

10:00 **3.3 Communication with the Media
and the Public**
Presentation:

Juliet Heller, Hoffman & Hoffman, USA

Comments:

Ghassan Ejeh, International Desalination Association (IDA), USA

10:30 **3.4 Relations with Decision and Policy Makers**
Presentation:

Mr. Ahmed Adam, Ministry of Irrigation and Water Resources, Sudan

Comments:

Dr. Chris Tydeman, Chief Scientist, World Wide Fund for Nature (WWF), UK

11:00 *Coffee*

11:30 **3.5 Relations with Other Water-Related Organisations**

Presentations:

Relations with Professional Associations – IWRA World Water Congress, John Pigram
 Relations with Educational and Research Organisations – Mathieu Pinkers, Wageningen University, The Netherlands
 WWC/GWP Relationship – Khalid Mohtadullah, Executive Secretary, GWP, Sweden

Comments:

Lester Forde, Forde Consulting Engineers, Trinidad and Tobago

12:30 **3.6 Role of WWC Regarding Upcoming Forums:**

The Dublin +10 event – Gerhard Naschold, GTZ
 Rio +10 and the WCD – Jean-Yves Piro, IUCN, Switzerland
 Report on Stockholm 10th Water Symposium – Ulf Ehlin, SIWI, Sweden
 Mexico and South America/WWC Joint Conference on Water – Rodolfo Ogarrio, Consejo Consultivo del Agua, and Salvador Aguilera Verduzco, Comision Nacional del Agua, Mexico

13:30 *Closing*



Part 2 – Appendices

Consultation Summary for Session 1

*The ocean is a body of water
occupying about two-thirds of a world
made for man - who has no gills.*
Ambrose Bierce (1842 - 1914),
The Devil's Dictionary



World Water Vision “Unresolved Issues”

Compiled by:
Richard Connor, WWC Western Hemispheric Bureau

Preface

In order to fully involve the membership of the World Water Council in the follow-up debates to the Vision presented at the 2nd World Water Forum in The Hague (March 2000), the World Water Council took the opportunity of its General Assembly (October 2000) to organise a Technical Session on this subject.

The Technical Sessions, held in Marseilles, France, consisted of three parts:

Session 1: World Water Vision – Unresolved Issues to address key issues based on debates during the Forum;

Session 2: The Way Forward for World Water, to address actions to be undertaken on the key issues identified in Session 1;

Session 3: The Way Forward for the World Water Council, to discuss how the Council will shape its future work.

Since the outcome of Session 1 formed the basis for discussions in Sessions 2 and 3, it was important that there be a broad and comprehensive sampling of opinions and views about the issues discussed, particularly about the issues requiring further deliberation prior to comprehensive and consolidated action being taken by the Council, on its own or in co-operation with others.

In order to better define the priorities of the World Water Council, a request was issued to all its members, as well as to 50 water professionals representing every possible sector, stakeholder group and point of view, to participate in formulating a range of key points to be addressed. Specifically, they were requested to prepare a one-page note summarising the issues deemed most important for further consultation and development, with a brief one-paragraph explanation on each issue, in response to the following question:

Which issues, underlying the major problems and dilemmas in the water field, both societal and technical, were not addressed, or were not sufficiently addressed, at the 2nd World Water Forum in The Hague?

The responses received prior to October 10, 2000, were included in the documentation provided to participants at the Technical Sessions, along with a summary of the main issues raised.

An updated version of the summary, which includes several additional submissions received during or after the General Assembly, is provided below. This document is intended to put into context the deliberations and debate that took place during the Panel Discussion held during the first Technical Session of the 2nd General Assembly.

Summary Results of the Consultation

The submissions covered a wide range of issues. For the purpose of brevity and cohesiveness, we have attempted to consolidate the points raised into seven broad categories. These are presented below in alphabetical order.

The topics are by no means mutually exclusive (e.g. co-operation and communication are recognisably closely intertwined).

Co-operation and Conflict Resolution

- Institutional and policy barriers to effective multi-sectoral integrated catchment management, especially in international basins, should be removed.
- Reciprocally beneficial relationships with other water-related organisations, including the various UN agencies with water-related mandates, should be nurtured. Post-Vision follow-up consultations were recommended.
- International efforts to assist local regions should be promoted.
- A failure to generate consensus on many issues (e.g., water as an economic/social good or human right; privatisation) stems in part from a lack of clear and widely accepted definitions of the terms and concepts.
- Water professionals should be encouraged to work in an integrated, interdisciplinary way through, for example, the creation of intersectoral freshwater forums including technical experts, civil society, and local and national governments.
- Traditional sectoral barriers should be broken down by creating open, transparent and consultative processes.
- Co-operation should be fostered between the Water and Nature, Water for Food, and Water for People sectors, reconciling different approaches, and mobilising and energising people in the future.
- The urgency of anticipating conflicts over shared water resources should be recognised.
- Common approaches should be developed to water resource management in international basins, including the establishment of legal references and the definition of principals, rules and practices for international co-operation, dispute settlement, and conflict resolution.
- The rights of both upstream and downstream states should be respected, as well as the need for transparency and communication, the no-harm principle, the law of prior notification, and the sovereign rights of peoples.
- The WWC should be urged, where appropriate, to act as a neutral mediator in resolving international water-related disputes and/or to establish a neutral international committee (or “corps”) to assist countries and regions with conflict prevention and resolution.

Communication, Outreach and Participation

- A movement for change should be created, making water "everyone's responsibility."
- Success stories (i.e., case studies) of water management in the developing world should be identified as models for the South-South transfer of water technologies and experience.
- Awareness should be raised among decision-makers by first of all raising the general understanding of water issues among the public, and training and educating the media in regard to these issues.
- Participation in water management and policy should be broadened to include women, youth, ethnic groups, small-scale business enterprises, the poor, and other "marginalised" groups.
- The Vision process should be brought alive at local and regional levels.
- *People-centred*, participatory, bottom-up approaches that make optimal use of local energy and initiatives should be encouraged.

Environment, Ecosystem Maintenance and Pollution Prevention

- The value that ecosystem goods and services provide to humanity should be recognised (nature is not in competition with humanity).
- It should be demonstrated how the theory behind integrated approaches that respect ecosystems can function in reality.
- In meeting the impending deficit in water required for food production (estimated at 7-17%), the environment should be protected from further degradation.
- The importance of maintaining biodiversity should be stressed.
- There is a need to go beyond the "polluter pays" principle, by examining regulatory enforcement and the use of economic and financial mechanisms to reduce pollution.

Funding, Market Mechanisms and Water Pricing

- The duality of water should be recognised – as both a social good (meeting basic human requirements), in which the State may need to intercede to protect the poor and the disenfranchised; and an economic good (meeting the needs of industry), for which the user who benefits should be held responsible for covering the full costs.
- The role of market mechanisms, incentives and sanctions in promoting efficiency in water use should be defined.
- The "reluctance" of International Financial Institutions to fund major irrigation projects – the costs of which are often beyond the ability of developing countries – should be addressed.
- Private sector participation and partnerships should be improved, particularly in small water markets (e.g., the Caribbean countries).
- It should be recognised that private-sector involvement is profit driven, and may not be suitable to all situations – particularly in the developing world, where water supply services are poorest and where the largest number of people without access to water is concentrated.
- We should ensure that the shift to full-cost recovery is gradual and based on a given user's ability to pay. No person should be deprived of water to meet their basic needs because of inability to pay.

- It should be recognised that commercialisation of data diminishes availability, and is therefore counterproductive.
- The economic value of water and the role of water pricing reforms (and other approaches) should be defined in order to encourage efficient allocation and conservation.

Infrastructure

- Principles to guide infrastructure development must be analysed and enunciated.
- There is an over-reliance on infrastructure that is socially and environmentally inappropriate.
- Water storage needs should be questioned as a function of demand – which, in turn, should be looked at in relation to how a value is placed on the provision of water.
- *Best methods* to deal with the effects of floods and toxic spills on water and wastewater infrastructure are required.
- Inter-basin transfers in regions of water scarcity should be examined as a potentially less costly alternative to dams, desalination, groundwater extraction, etc., while identifying the environmental costs of each alternative.
- The importance of reservoir projects and hydropower projects should be on the table as potential options in

Everyone values things differently. In other words, they place their own value on everything that affects their lives. Also from moment to moment they may even change their values. Such as a person, who values diamonds above all else, might be willing to trade a gallon of diamonds for a drink of water to save his life in a desert.

Sidney Madwed

- meeting future world needs for clean energy and efficient water resource development projects when their social and environmental costs are less than other alternatives.
- Society, Food and Poverty**
- Applications and areas of greatest water need should be prioritised.
- The water demands of an urbanised world should be planned for.
- The unique perspective of the developing world has to be taken into consideration.
- The issue of access to water and sanitation should be championed as a human right, as enshrined in both the 1989 Convention on the Rights of the Child and the Universal Declaration of Human Rights. National governments should be urged to meet this responsibility.
- Regional or cultural values and concepts related to water resources should be integrated with care and consideration into management strategies.
- A framework should be developed for disaster preparedness for water and sanitation systems.
- Increased "water for food" demands should be reconciled with ecosystem needs (in the context of finite water resources).
- Community-based approaches should be promoted for meeting unfulfilled water needs.
- The issues of water rights and allocations/licensing should be examined.

Technology and Data

- There should be a stronger focus on technology, including for recycling and desalination.
- Many countries lack the necessary data and sufficiently trained staff to soundly manage integrated water resources.
 - There is a need for greater technology transfer and information.
 - Further training is required at appropriate levels.
 - Cutbacks in government funding mean that current assessments of water resources are worse than they were 20-30 years ago, and monitoring systems are now ineffective in many countries.
 - There should be a greater focus on areas where climate change is expected to have the greatest impact on the water cycle (e.g., high latitudes).
 - There are considerable problems in detecting climate change effects in hydrological data due to poor coverage, discontinuous records, lack of standardisation, etc.
 - Simple and inexpensive indicators are required (i.e., the *minimum* we need to know) that will provide information to permit policy development and decision-making.
 - Tools and techniques to enable the integration of environmental, social and economic factors are required.
 - New technologies produced in developing countries (e.g., remote sensing and GIS) should be transferred to underdeveloped regions.

Submissions

The World Water Council received submissions from the contributors listed below (appearing in alphabetical order). The original texts of the submissions that were received prior to October 10, 2000, were circulated at the General Assembly for reference purposes. A representative selection of these is included in the following section of this report.

- Ahmed Adam – Ministry of Irrigation and Water Resources (Sudan)
 Dogan Altinbilek – DSI (Turkey)
 Tara Al-Atrash – Minister of Irrigation (Syria)
 Alison Bartle – International Hydropower Association (UK)
 Belinda Calaguas – WaterAid (UK)
 Bertrand Charrier – Green Cross International (France)
 William J. Cosgrove – Vision Management Unit (Canada)
 Lester Forde – Forde Engineering Consultants (Trinidad)
 Rodrigo Gomez – Ministry of Public Works (Chile)
 Yumio Ishii – CTI Engineering Co., Ltd. (Japan)
 Jean-Marcel Laferrière – Canadian International Development Agency (Canada)
 Matthew McCartney – Center for Ecology and Hydrology (UK)
 D. N. Moore – Mott MacDonald (UK)
 Chris Morry – IUCN (Canada)
 Marc Overmars and Alf Simpson – SOPAC (Fiji)
 John J. Pigram – Centre for Water Policy Research (Australia)
 Adam J. Rankin – CENSAT "Agua Viva" (Colombia)
 John Rodda – International Association of Hydrological Sciences (UK)
 Hans van Damme – WSSCC (The Netherlands)



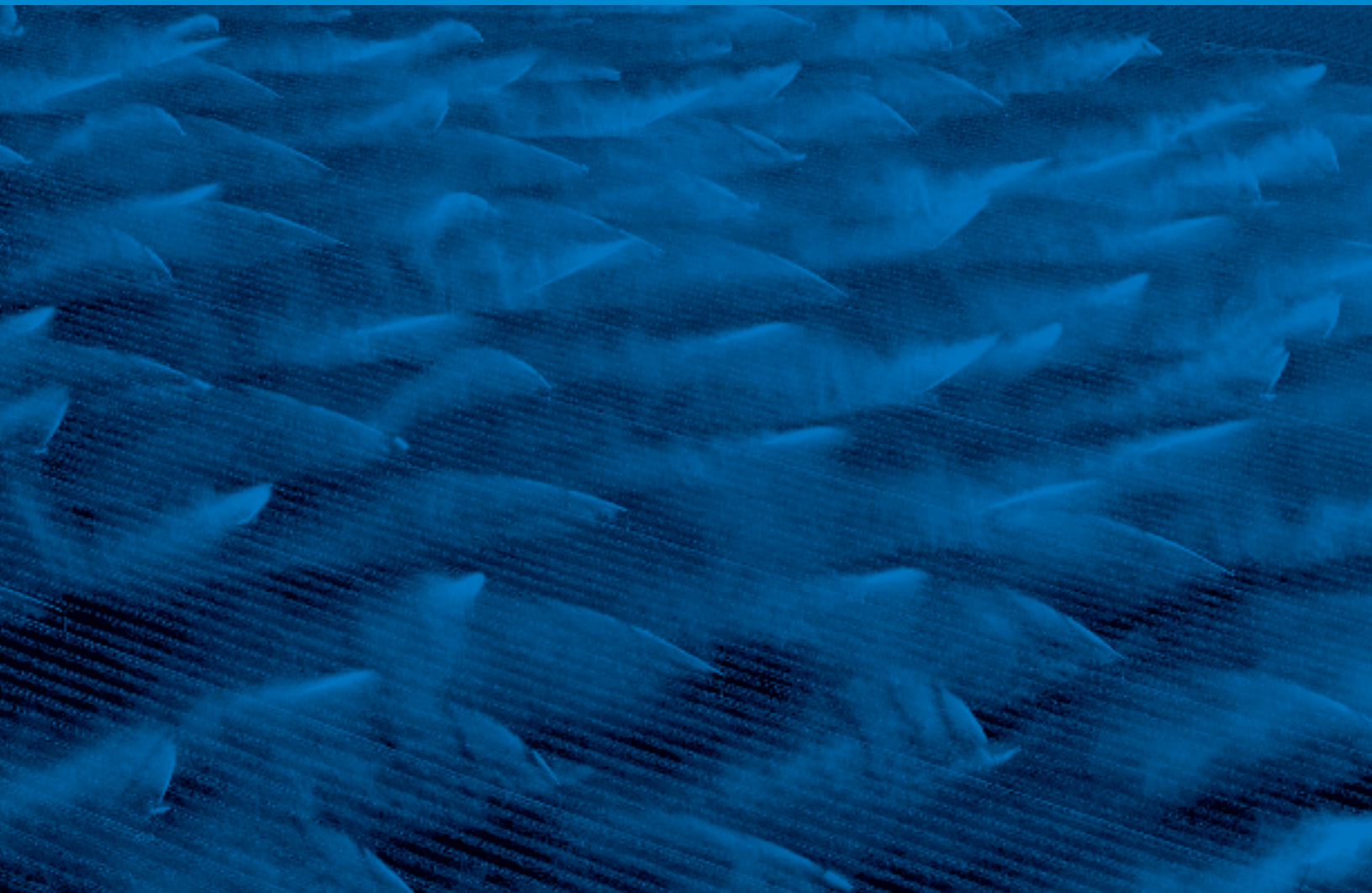
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Part 2 – Appendices

Representative Selection of Contributions and Presentations

Presented here is a small sampling of the contributions offered prior to, and presentations made during, the three Technical Sessions. These papers have been selected to cover the range of topics under discussion and to give clearer insight into the background behind the debate that is recorded in Part 1.



Hans Van Damme, WSSCC

World Water Forum: Unresolved Issues

1. People-centred approaches

A major issue raised by many partners at the World Water Forum was the urgent need for changes towards people-centred, participatory, bottom-up approaches, making optimum use of local energy and initiatives, facilitated by 'top-down' support, directed through stakeholders' groups responsive to community decision-making processes. In view of the way the Forum was organised there was little opportunity to debate this issue.

Principles that characterise people-centred, participatory, bottom-up approaches include:

- *A reversal in prevalent directions of thinking and action*, starting at the level of households or neighbourhoods, working up from there to community and higher levels, while requiring enabling actions from the top.
- *Focus on empowerment* through, amongst other methods, the mutual sharing of knowledge of all parties at all levels via communication and information exchange.
- *Full involvement of all concerned in consultations on needs, resources and action preparation*, including local people, households, civil society, professional people, policy makers and politicians at various levels.
- *Plans and actions based on ideas, initiatives and commitments of local people*, and using their support, resources, contacts, and management skills where possible.
- *Planning, implementation and management of services through full involvement of all stakeholders* (directly or through democratic representation).

2. Follow-up consultations

During the past year several Visions were developed and presented at the Forum. Unfortunately only marginal interactions took place *in response to the Visions*, between the major organisations at the global level, who so much influence the way of working at national and local levels. There is a danger that the consequent state of affairs will be that each group will continue its own programmes, and that not much will change since the World Water Vision was developed.

A most important and necessary next step should now be to take the time to develop interaction and synergy in response to the Visions, through consultation between the major partners at the global level. These consultations should include such issues as democratic participation, local initiative versus international initiative, the role of global funding, pros and cons of private sector support, etc. These consultations are to be held at the global level, not because global actors should be the major players, but because they influence ways of working through their organisations at lower levels, their constituencies and the mandates they have been given, and in many other ways. Much as we would like to avoid international gatherings, and use the Internet instead, such consultations can only be effectively held through mutual discussions at meetings and other get-togethers.

3. Cooperation between water sectors

The intention of the World Water Vision was close(r) cooperation between the Water and Nature, the Water for Food and the Water for People sectors, so as to reconcile different approaches. This has far-fetching ideological, political and technical implications that will need to be resolved primarily at the local levels. It would seem that follow-up to this intention has faded. Urgent action is required here.

Belinda Calaguas, WaterAid

On The World Water Vision and WWC

In response to the request for input on the work of the WWC and on the World Water Vision (WWV), I would like to contribute the following thoughts and ideas.

On the World Water Vision

A major gap that we saw in the WWV was its silence vis-à-vis the issue of access to water and sanitation as human rights. As an organisation that wants to think of itself as a champion on water issues, the Vision document prepared by the WWC's own staff should have had this as a starting point. The right to drinking water and sanitation is enshrined specifically in the 1989 Convention on the Rights of the Child, and yet many governments have chosen not to acknowledge and recognise that this is so. Their declaration at the Second World Water Forum shows that there is no high-level consensus on this issue. The WWV has added to the muddle and has allowed governments to shrink from this responsibility by failing to be grounded on this right.

There has also been too much emphasis on private sector involvement in domestic water provision and management. And on this, there has been too much emphasis on international private sector investment in domestic water. In spite of the fact that international investments/foreign direct investments in water supply are but a small element of overall investments. And in spite of the fact that these investments are concentrated not on the least developed countries where water supply services are poorest and where the biggest number of people without access to water are concentrated. Promoting international private sector investment as if this is the primary means of addressing the lack of access to water is misguided.

How has the World Water Vision sought to incorporate the various other sectoral visions? There is a real concern that the sectoral visions that were developed and worked upon by scores of people in both developed and developing countries have not been sufficiently integrated into the WWV. And there is very real concern that the WWV, in effect, was developed in isolation from the other sectoral visions, through the WWC's own technical experts. The WWV did not undergo the level of consultation that many of the sectoral visions underwent, and therefore was criticised for its lack of accountability. So the question that now faces the World Water Council is what does it do with the Vision it created? This Vision has not succeeded in mobilising people in the past (apart from some technical experts). How can it succeed now in mobilising and energising people for the future?

**Thousands have lived
without love, not one
without water.**

W. H. Auden

The World Water Council

The World Water Council has done a particular service to the freshwater community by hosting and organising the World Water Forum. This was a particularly welcome service as it brought together the various actors: technical actors (though perhaps not all political actors) from the main freshwater sectors. But though the sectors were all in one place together, they did not necessarily mingle together. The sectoral divides were operational throughout the World Water Forum.

I think that the creation of inter-sectoral forums in the freshwater sector should remain as the key task of the World Water Council. In the electronic conferences currently being conducted by the members of the Water Supply and Sanitation Collaborative Council as part of preparations for the Fifth Global Forum of the WSSCC, the idea of 'networks for learning' was mentioned several times as something that was necessary and part and parcel of the approach to achieve universal access to water supply, sanitation and hygiene.

The WWC's inter-sectoral forums need to be one such 'network for learning' and cross-sectoral influence. Thus the focus of each of the inter-sectoral forums needs to be chosen with great care in order to engender cross-sectoral support, as well as support not just from the technical experts, but also from civil society groups, and local and national governments. Civil society participation at the Second World Water Forum produced some of the most political and trenchant criticisms of current paradigms in the sector. This criticism went hand in hand with civil society engagement, debate and discussion on the various issues that played high in the 2nd WWF. 'Expert' conferences can no longer fail to realise that there are legitimate and rich contributions from civil society groups – and that these contributions need to be harnessed, acknowledged, encouraged. Thus in organising these inter-sectoral forums, the WWC needs to pay better attention to enabling civil society participation, especially from groups working in developing countries (the global South).

Apart from sponsoring and organising the inter-sectoral forums, how else can the WWC play a meaningful and useful role? As a self-organised and self-mandated think tank, the WWC could also play a useful role by challenging sectoral orthodoxies, and do this in a transparent, consultative way, addressing itself to scientific and technical experts, governments and civil society groups. If it were to be engaged in research projects, these projects need to be collaborative efforts, preferably across the sectoral divisions of the freshwater sector, and involve multiple stakeholders in the freshwater sector: governments, NGOs, trades unions, scientific community, business, etc.

Finally, the WWC needs to review what its relationship and attitude needs to be vis-à-vis the UN CSD processes. Is it helpful to these processes? In a world where people all over are clamouring for more and more accountability of international institutions, the WWC cannot turn a blind eye to the UN.

D. N. Moore, Mott MacDonald (UK) The Reality of the Situation

Most issues were well covered by the World Water Forum in The Hague. Some of the areas that were not sufficiently covered related to the *reality of the situation* and the difficulties that are encountered in implementing what are often perceived as solutions.

Some of the key issues at present that must be addressed in the future include:

Monitoring systems

In many/most countries, funding of monitoring systems is already low and pressures on government expenditure further reduce the effectiveness of data gathering, analysis and response activities. Poorly trained staff, inadequate

status and salaries, and inadequate annual budgets result in severe concerns over the basis for future water management activities/decisions.

The role of the private sector in developing nations

The private sector's involvement in water management and service provision in many developed countries has been perceived by many as being the solution for a very broad number of problems worldwide. Donors have stepped back to allow the private sector to take over. Private sector involvement has increased but is clearly dominated by a profit ethos that will be difficult to satisfy in many situations. A better understanding/acceptance is required of the reality of the interface between private and public sector responsibilities/potentials.

Water pricing

Cost recovery for both operation and maintenance (O&M) and for capital works needs to be addressed. Water pricing to encourage better water use is also a necessity. Willingness and ability-to-pay issues are critical and will take many years before an economist is going to be satisfied. Its role in demand management will need to be addressed from a socio-economic perspective.

Water rights

In many countries water rights are only just being addressed. The issue of water rights and the assignment of rights through licensing against agreed quotas and charges is in its infancy. Reconciling use by the irrigation sector with other water users will often be a difficult issue. The scope for errors, disputes and misadministration is enormous. The issue of rights and allocations/licensing will need major attention over the coming years.

Pollution prevention

The "polluter pays" principle is generally understood by all. However, how much someone should pay and how to enforce regulations is more difficult. There has to be a move to use economic and financial mechanisms to reduce the incidence of pollution. Recovery from pollution incidents can be very expensive and sometimes impossible.

Bertrand Charrier, GCI National Sovereignty and International Watercourses

Mikhail Gorbachev, President of Green Cross International, was deeply involved in the preparation of the Water Vision report, as a member of the Commission and as chairman of the Sovereignty Panel which gathered four former heads of State: the Hon. Ingvar Gösta Carlsson, former Prime Minister of Sweden; the Hon. Sir Ketumile Masire, former President of Botswana; and the Hon. Fidel V. Ramos, former President of the Philippines; as well as himself. This group addressed the question of how to sustainably and peacefully share and preserve the water of the internationally shared rivers and groundwaters which make up over 40% of the earth's surface. The report on *National Sovereignty and International Watercourses*, released during the 2nd World Water Forum, summarises their approach and proposals.

Highlights of the report on *National Sovereignty and International Watercourses*

It is not necessary to provide the full set of their proposals in detail here, but rather to highlight the most important elements:

- The need to anticipate conflicts over shared water resources and to find international, legal and political mechanisms to assist in resolving them is becoming urgent.
- The question of who has the right, or entitlement, to how much water for what and when can be asked at the level of riparian states and between different groups of people sharing a pump or stream.
- It is dangerous to be too dismissive over the risks of future inter-state conflict over shared waters in regions of increasing water scarcity.
- Unless a comprehensive set of principles on how to share this precious resource is developed now, certain states may be forced to resort to desperate measures to secure enough water for their survival.
- The adoption of good water laws and priorities at the national level is an absolute necessity, but states which face a thirsty future need also look to their neighbours and develop agreements on protecting and fairly apportioning common watercourses and jointly developing ways to use their water more efficiently in order to pre-empt the crisis.
- Between upstream and downstream states, it is necessary to develop cross-border systems of compensation and trade-offs, whether to deal with problems of scarcity, flooding or pollution.
- Creation of a system of effective interdependence rather than restricted sovereignty.
- The ratification of the UN Convention on the Non-Navigational Uses of International Watercourses would be a gesture of goodwill on the part of states, and could serve to remove the misplaced feelings of suspicion and insecurity which hinder the establishment of regional, basin level agreements.

Responding to the Forum

Some of the most important proposals suggested by the Sovereignty panel did not receive enough attention in the Vision Report of the Commission. It should not be forgotten that:

- The basic entitlement to enough clean water to allow a healthy and dignified lifestyle is a fundamental human right, enshrined in the Universal Declaration of Human Rights.
- The revision of national water laws and the adoption of Clean Water Acts, including rules for implementation and regulation, is essential.
- State sovereignty over shared watercourses is limited by the needs and rights of others.
- The rights of both upstream and downstream states should be stressed, as well as the need for transparency and communication, the no-harm principle, the law of prior notification, and the sovereign rights of peoples.
- Solutions for the sharing of specific international watercourses should be proposed, including the creation or strengthening of regional institutions for basin-wide water management. These institutions should be suitably empowered to make decisions regarding the joint management and protection of transboundary basins, and have the necessary financial, administrative and technical means and resources for active implementation.

- A neutral international "corps" or body should be established for mediation in times of water-related conflict. This international body would also assist countries and regions with conflict prevention and resolution, and with the support of the private sector, international institutions and international NGOs.

Adam Rankin, CENSAT Aqua Viva Unresolved Issues

Thank you for your interest in contacting us. We believe it is vital to maintain a continuous channel of communication and action between groups around the world on water policy and management issues. In this short memo we outline a few aspects that we believe important for further consultation and development with regard to the World Water Vision process:

Broadening the criteria of participation

The level of participation in the Vision process was reflected in major proportion by the academic sector. More efforts should be put into ensuring a wider breadth of actors and experiences, which include: women, youth, ethnic groups, micro-companies, peasants, etc. This point emphasises the importance of orientating water management policies in line with the vision of sustainable livelihoods for local communities and marginal groups of the society, as well as preserving the integrity of water-related ecosystems.

Bringing the Vision process alive at local and regional levels

The Vision process should allow for the inclusion of a local/regional consultation-action strategy, where representatives are committed to divulge and get wider and more in-depth feedback on the Vision process.

The question is how, based on a creative and participatory approach, can we bring the Vision process alive at regional and local levels? How can we resolve the problem of lack of information sharing and the need for local empowerment and capacity building?

Urgent action campaigns – case studies

A number of key issues are being faced by Latin American countries in this new century, all of which present a serious and imminent threat to the sustainable water world. These include direct and indirect impacts on the water environment derived from:

- Large-scale mining and oil exploitation projects.
- Large hydroelectric projects.
- Chemical and biological fumigation of illicit crops.
- Privatisation of water utilities by private national and multinational companies.
- Climate change – flood and drought phenomena.
- Growing trends of urbanisation and water demand imbalances.
- Monoculture plantations, including reforestation – CO₂ debt interchange.
- Displacement of indigenous and traditional communities of their land and water rights.

The Vision process should consider how these issues can be taken aboard through Action Campaigns or Case Studies that highlight with concrete facts the seriousness of these events, permit the exchange of experiences and information

between affected groups, as well as open up the eyes of decision makers to a series of sustainable management alternatives.

Finally, we would like to express our interest in being able to participate more actively in the water Vision planning and action strategies at regional, Latin American and international levels. We believe that our continued work and experience in key areas such as the protection of mountain forest ecosystems, participatory monitoring of oil and mining projects, organic agriculture, environmental projects with micro-companies, and organisation of youth groups, could be an important input to this ongoing process.

Marc Overmars, SOPAC Omission of Pacific Small Island States' Concerns

(On behalf of Alf Simpson, Director, Water Resources Unit, South Pacific Applied Science Commission [SOPAC])

During the months of preparations leading to the World Water Forum in March 2000, many aspects for the Vision have been dealt with by the many working groups, water specialists, national and international organizations and scientists. Our Water Resources Unit has been following the initiatives taken by various groups, with our attention mainly focussed on the development of the "Water for People" Vision. The number of issues raised was so overwhelming that hardly any issue can be found that has not been dealt with or touched upon.

However, we feel that the specific issues eminent for the Pacific region have not been given attention. In the wide range of regional Visions, the one specifically for Pacific Small Islands was lacking. We realise that with the Pacific region's diversity and complexity it will be a difficult exercise to accomplish. Fortunately, we can learn from experiences of the Vision working group for Small Island States, which mainly consisted of Caribbean nations but shares similarities with Pacific islands. We hope that international organisations can assist us in addressing water-related issues in our region.

SOPAC's Water Resources Unit wishes to give attention to the following issues in the coming years:

- Develop a Vision for Water and Sanitation for Small Island Developing States in the Pacific.
- Develop a Framework for Disaster Preparedness for Water and Sanitation Systems in Small Island Developing States.
- Fill the need for technology transfer and information: SOPAC as Water and Sanitation Co-ordination Centre in the Pacific/linking the Small Island Water Information Network (SIWIN), including a virtual library.
- Fill the need for training at appropriate levels: SOPAC's capacity building program, including Earth Science courses, training attachments, developing distance learning materials, curriculum development.
- Fill the need for policy development: SOPAC to assist in developing legislation/guidelines for water resources (groundwater, surface water, as well as waste water) with policy makers in the region.

We hope that these issues can contribute to the Mobilisation of Action for Vision 21 in the Pacific.

William Cosgrove, Ecoconsult Water Issues and the WWC's Future Role

The overall issue facing all of water management is raising awareness of decision-makers, and I still believe that a major component of this is raising public awareness. One avenue for this is training/education of journalists concerning the issues.

Water for Food is a major area requiring further investigation. There was a good meeting in Stockholm with many stakeholders present. Frank Rijsberman (now IWMI) is organising a follow-up meeting in Sri Lanka in December where all of the stakeholders will be present.

The Collaborative Council has done an excellent job of categorising the Water for People issues. These are all being debated in a series of parallel listserv discussions going on until mid-October. There have been a couple of hundred interventions so far.

One issue for me is whether the community-based "bottom-up" approach can spread fast enough to meet the unfilled needs without commitment to and facilitation of the process from the top. A pilot will be established in January in Bombay to test this approach.

In Water and Nature the issue is to demonstrate HOW an integrated approach that respects ecosystems (including biodiversity) can function in reality as opposed to in theory. The new program of basin level pilots supported by the GEF, with the cooperation of WWF and IUCN, will help with this. Of course, there still remains more awareness-raising to be done here on the services provided to man by ecosystems.

The question of how much water needs to be stored and in what way it should be stored still is a major one. Everyone is waiting for the Commission report on November 16. But the reality is that (as for the World Water Vision) there can be no generic solution. The question will have to be answered in each basin. (Links to Water and Nature, above.) Methodologies will be needed for this.

How much water needs to be stored depends too on how much we need – and that demand question is linked to how we value water. While we have done a good job of marshalling the arguments to support the concept of water as an economic good, we have failed to do so in a way that generates consensus. We need to work with others yet to reconcile the concepts of water as an economic good, social good – or even right. The terms just are not commonly defined so as to permit understanding, debate and reconciliation. The same applies to "privatisation." Of course, this is linked also to resource mobilisation. (The *Club des ambassadeurs* will be asking the question of whether privatisation is necessary for efficient supply of water and sanitation [and irrigation?] services).

Water resource management in international basins might be helped by a common approach. The UN Convention is (I guess) in limbo following failure to have it ratified. The USA (Albright) has proposed a Global Water Alliance. Again, many support the general concept, but it needs a lot more definition and debate before it will come to pass. It should NOT be another donors' club....

As we discovered during the Vision exercise, countries don't have the data and information they need for sound integrated water resources management, and the international community does not have the information that would allow us to examine the situation on a global scale – especially where needed to study the drivers of climate change, global food security, etc. The ACC process led by Gordon Young will be a good start on this, but the most difficult part is defining indicators that will provide information that permits policy development and decision-making. Still a long way to go! After that, collecting the data to develop the indicators can be a costly effort.

There are also questions about how we actually get water professionals to work in an integrated cross-disciplinary way (the objective of the proposed Canadian Network of Centres for Excellence in Water is to develop professionals who are trained in cross-disciplinary water research). We also need to link water and environment professionals with scientists in other disciplines. At least as important is linking professionals to decision-makers in civil society and government.

All of this leads to the future role of the Council.

Lester Forde, Private Consultant Small Water Markets and Emergencies

Small water markets and private sector participation

Very often the argument is posed suggesting that there are investors willing to participate in Private Sector participation in all available water utilities. This is not true even if the market is large. Case in point: the rural areas where traditionally even the state-owned utilities were unwilling or unable to provide service. Small countries offer a different challenge since their size precludes any interest from large private companies and also means that only a single operator can be considered. Purchasing of supplies from chemicals to fittings can be a challenge to these small water utilities. In the Caribbean several utilities have banded themselves into the Caribbean Basin Water Management Program (CBWMP) and they purchase jointly. Is this a model for other small water companies and how can it work?

Discussions on Private Sector participation frequently ignore the small local provider; e.g., the local who owns and operates a water tanker or well or stand post. These persons are key service providers in a niche abandoned by the more formal arrangements. Further discussions on these arrangements are necessary.

Water and sanitation and emergencies

The recent torrential rains in Mozambique, India, and Bangladesh resulted in damage to the water and wastewater infrastructure. Man-made disasters resulting from toxic spills incapacitated the water systems in Europe. There is need for a wide-ranging look at how to deal with these. In particular, flooding would empty pit latrines, septic tanks and sewers into sources of water supply and expose populations to epidemics. On Small Islands the situation is acute after cyclones or hurricanes, which can disrupt water and sanitation systems directly or by damaging the electrical supply system. A whole new set of thinking must be dedicated to solving this problem.

Matthew McCartney, **Centre for Ecology and Hydrology** Three Underlying Dilemmas

Biodiversity is sometimes a benefit and sometimes a constraint on human development

How do we assess when it is acceptable to sacrifice biodiversity and when should it be retained?

Freshwater ecosystems are sensitive to change. Human development necessarily requires modification of ecosystems. We have an ethical duty to ensure that all people attain a minimum "standard of living," but at the same time we have a moral duty to protect other species. In some circumstances these duties will conflict. Is it simply societal preference that decides when it is and when it is not acceptable to sacrifice biodiversity to benefit people?

Good scientific analyses can make decision-making more difficult

This is because they highlight critical uncertainties arising from the complexities of ecology and the history of human interventions. Consequently it is not always clear how science should be incorporated within the decision-making process.

Although decision-making needs to be as informed as possible, nevertheless good science can sometimes complicate the picture, particularly when dealing with complex processes such as occur in aquatic ecosystems. There is definitely a need for fundamental research to understand the functioning of ecosystems and the impact of different human interventions. However, recognising that it is impossible to know everything about ecosystems, thought also needs to be given to determining what is the minimum we need to know about the structure and functioning of ecosystems to be able to successfully "manage" them.

Successful integrated water resources management requires the integration of environmental, social and economic factors

However, at present there are very few methods for directly linking these different aspects.

There is a need for research to develop tools and techniques that enable these different components to be truly integrated. This is particularly crucial when trying to compare the social economic and environmental implications of different development options (e.g., the costs and benefits of a hydropower plant verses those of a thermal power station). All these factors must also be combined when trying to decide on trade-offs between conflicting water uses. Early work on tools such as Bayesian networks is promising but much more needs to be done.

J. K. Banyard, Severn Trent 10 Years of UK Water Privatisation – A Stakeholder Review

Historical

The history of modern water supply and sanitation in the United Kingdom is generally acknowledged to have started in the 1840s as a result of a report produced by Sir Edwin Chadwick. The report highlighted appalling conditions of the day such as the City of Birmingham where only 8,000 of the town's 40,000 houses had water laid on. A Royal Commission investigating the situation also found much evidence of local authorities failing to co-operate. In Liverpool, for example, the Town Council were responsible for the water supply but two mutually hostile commissions were responsible for sanitation.

The City of Oxford's response to a 1948 Questionnaire enquiring as to what steps had been taken to provide an abundant and economical supply of water was that they had done nothing and "were not likely to do so until compelled by Parliamentary Interposition." Although the situation improved dramatically over the next 100 years, hostility between local authorities in terms of co-operation for provision of potable water and sanitation was not fully addressed until the 1974 reorganisation of the United Kingdom's water industry.

Joint Water and Sewage Boards were formed by some far-sighted towns, and the Water Resources Act of 1963 created 27 River Authorities whose areas were related to the basins of the main rivers, and who were charged with co-ordinating water resources in England and Wales on a regional basis. Although this was a major step forward, the rivalry between local authorities continued and resulted in much uneconomic investment arising through lack of co-operation. It was not unusual to find two sewage works on opposite sides of the same road each serving two separate local communities.

A key milestone was a report on the Future Management of Water in England and Wales published in 1971 by the Central Advisory Water Committee. This pointed out that effective conservation of water and treatment of sewage were essential and required interventions of Central Government. It concluded that the remedy lay in the development of comprehensive water management plans for each river basin, and highlighted the need for a sweeping reduction in the number of separate units involved in sewage disposal and water supply.

By 1974 there was still a surprising degree of fragmentation with:

- 29 River Authorities
- 160 Water Undertakings
- 1,300 Sewerage Authorities.

A radical solution was required and in 1974 the Municipal Authorities were stripped of responsibility for water supply and sewage treatment and 10 Regional Water Authorities were created to serve the whole of England and Wales. Twenty-eight small statutory water-only companies which were privately owned and supplied drinking water to 22 per cent of the population were left untouched by this legislation.

It was recognised that there would be difficulties in being seen to move water services from the control of local municipalities and assurances were given by the Secretary

Table 1

Appointment of members to STWA

Secretary of State for the Environment (incl. Chairman)	17*
Minister of Agriculture, Fisheries and Food	4
County Councils	11
District Councils	16
Total	48

* Increased from 14 August, 1974
Increased from June 1979

Table 2

Number of appointments

Councils	County Councils	District
West Midlands	2	2
Birmingham Metropolitan District	-	1
Derbyshire	1	2
Gloucestershire	1	1
Hereford & Worcestershire	1	1
Nottinghamshire	1	2
Powys	1	1
Shropshire	1	1
Staffordshire	1	2
Leicestershire	1	2
Warwickshire	1	1
Total	11	16

of State for the Environment that local authority members would be in a majority on each Regional Authority. This approach led to very large Boards being elected. The constitution of the Board of the then-Severn Trent Water Authority (STWA) is shown in table 1.

The 21 members appointed by Central Government were selected for their special knowledge and experience in relation to the responsibilities of the Authority. They were also selected to reflect a range of customer and other interests including agricultural, industrial, commercial and domestic users. The Authority itself had no formal say in the appointment of a new member.

The 27 members appointed by local authorities were all elected members of those authorities who had been nominated by individual authorities.

A breakdown of these appointments between authorities is shown in table 2.

With the inevitable local authority background, the new Regional Water Authorities took on the shape of local authority management and the committee structure of the Severn Trent Water Authority is shown in Figure 1.

Such large committee structures were unwieldy and by 1980 concern was being voiced that the operations of the Regional Water Authorities were not as effective as might be expected. There were two reports by the Monopolies and Mergers Commission (anti-Trust Commission) which reported on all aspects of the Regional Water Authorities, but most particularly criticised the management structure and in particular the role of 48 part-time, non-executive members. The reports recommended that the structure of a Regional Water Authority (RWA) should be changed to more closely follow the management of a large private company. Boards

were created made up of full-time officers and government nominees, with the total Board membership not to exceed 15 in the case of any RWA.

Underfunding was a major problem from 1974 onwards and it proved impossible for the RWAs under either system of management to tackle the dereliction and poor quality assets that had been inherited in 1974 from predecessor authorities. The problem was further compounded in the mid 1980s when the European Union introduced laws controlling the quality of drinking water and sewage effluents. As central government realised that the cost of this legislation would exceed \$US60 billion between 1989 and the turn of the century, the government was forced to find alternative ways of funding the necessary improvements.

Privatisation was pursued and implemented in November 1989.

In order to facilitate the privatisation and meet its objectives, the government recognised the fundamental incompatibility between the role of the operator and the role of the regulator. While the government had been happy to have a nationalised industry which regulated its own quality performance, it recognised that this was not a model that could be applied to industries within the private sector. It therefore set about creating regulatory bodies to deal with both the economic and technical aspects of water supply and water pollution.

Economic and financial regulation based on the "Austrian" model was put in the hands of the Office of Water Services (OFWAT). This Body was headed by a Director General, Ian Byatt, who has been in post since 1989 and is due to retire in July 2000.

In reality, the quality regulation of drinking water already existed as a small government department and the role of this department was expanded greatly to give them very strong regulatory powers over the quality of drinking water provided by the newly privatised companies. This department is headed by the Chief Inspector who is currently Michael Rouse.

As far as the river pollution role was concerned, this was hived-off with responsibility for land drainage matters into a newly created National River Authority, which subsequently was subsumed into the Environment Agency.

Other regulators already existed such as Environmental Health Officers within municipal authorities, and the Health and Safety Executive.

Figure 2 shows, diagrammatically, the impact of EU and UK laws together with the roles of the various regulatory bodies.

Impact on stakeholders

It is apparent from the foregoing that there are a number of stakeholders whose interests are served by Severn Trent and other private companies in the UK.

Effectively, the stakeholders can be viewed as:

Direct Customers:

- Domestic
- Commercial

The Environment

The Government represented by:

- OFWAT
- Drinking Water Inspectorate
- Environment Agency
- Health and Safety Executive

Employees

Stockholders

Figure 1
Severn Trent Water Committee structure

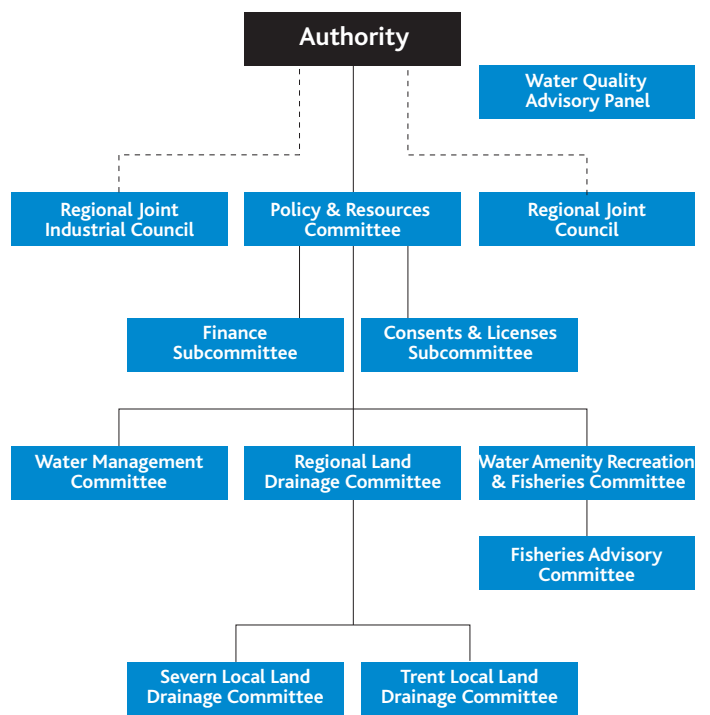


Figure 2
Impact on Stakeholders

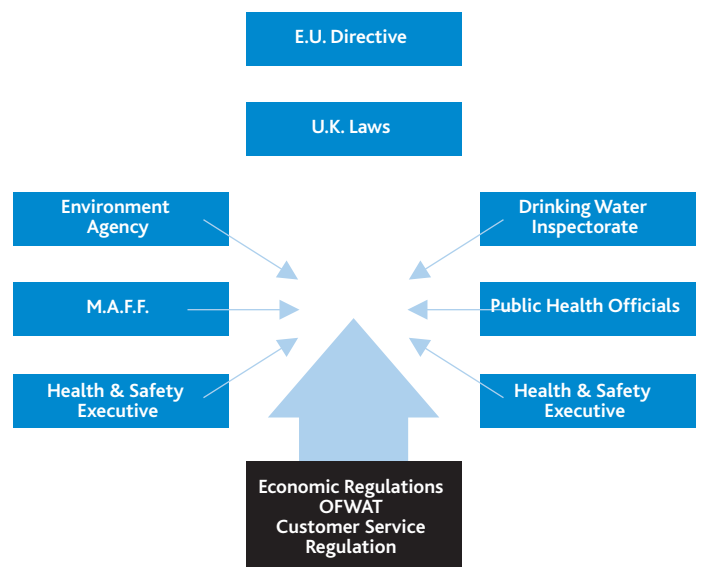


Figure 3
Stakeholders
Severn Trent

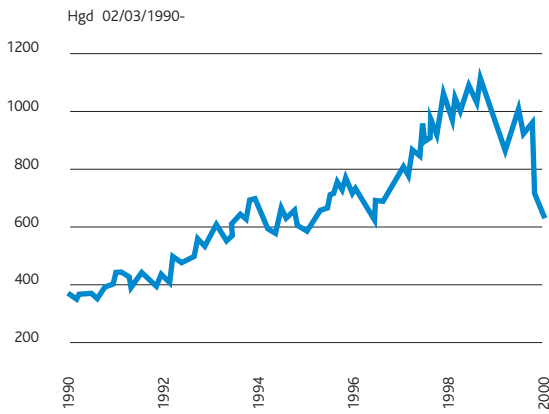


Figure 4
Impressions of Severn Trent Water
STW is a responsible and trustworthy company

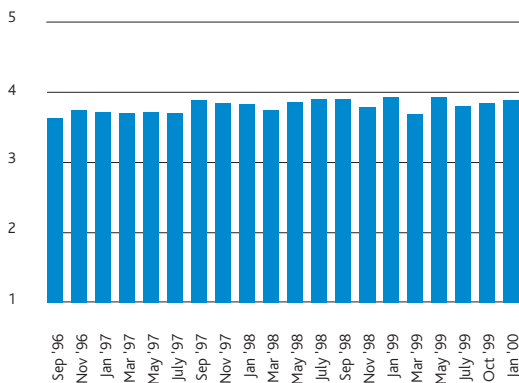


Figure 5
Government – Drinking Water Quality

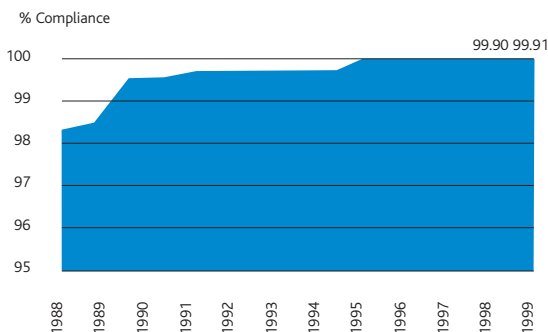


Table 3
Regulatory Standards

DG1	Water resources
DG2	Inadequate pressure
DG3	Supply interruptions
DG4	Restrictions on use of water
DG5	Flooding from sewers
DG6	Billing contacts
DG7	Written complaints
DG8	Bills for metered customers
DG9	Ease of telephone contact

Stockholders

It is a fact that many of the stockholders are also the Company's customers but in line with many large companies, the biggest stockholders are the institutional investors.

Figure 3 indicates the history of Severn Trent's stock price over the last few years. The Company was floated at a price of £2.75 per unit of stock, and it can be seen that the price peaked at almost four times this figure. However in July 1999, the Economic Regulator, OFWAT, issued indicative price limits and these were finalised in November 1999. The impact of these reviews on the price of stock has been significant. The problem has been further exacerbated by the emergence of the ".com" businesses which has resulted in a severe re-rating of the sector.

The yield from the stock is currently in the order of 9 per cent.

Customers

The price of water has risen significantly since 1989, and indeed in reality rose significantly from the creation of the Regional Water Authorities in 1974.

The 1 April, 2000, will see the first real drop in the price of water in 25 years, as a result of the Regulatory Review of Prices. The average reduction in cost across the UK will be approximately 12 per cent as a one-off adjustment. Thereafter, the original formula of RPI plus K will continue to be used, although the K factor varies from company to company, being negative for some and positive for others for each year of the five-year regulatory period.

In terms of Customer Service, the Regulator publishes league tables of key performance indicators (KPI). The Regulatory Standards are shown in table 3.

In all cases, there has been a significant improvement in each of these indicators over the 10 years of privatisation.

Figure 4 shows the results of Severn Trent's in-house customer tracking and again shows an upward trend. It is interesting to note that before privatisation no Water Authority would have undertaken the regular market research necessary to underpin statistics such as these. It is also clear that gaining an improvement in customer perception is a long-term project and cannot be satisfied by short-term expedients often put forward by Management Consultants and others.

Drinking water quality

Although drinking water quality impacts on customers, it is also a statutory requirement imposed by the European Union through the UK legal system. The stakeholders in this area are, therefore, the European Union, the Government, the Drinking Water Inspectorate as the enforcement authority, and of course our customers.

Figure 5 shows the improvement in drinking water quality since privatisation. Note that 1999 was the best ever year for Severn Trent Water, at 99.91 per cent compliance with over 60 parameters and involving 250,000 separate determinations.

It is also interesting to note that the quality standards themselves tightened considerably at privatisation. Prior to this time, the then-Water Authorities had to meet the 1980 EU Drinking Water Directive, but only against a very relaxed Government interpretation of its requirements. Following pressure from the EU in the late '80s, the Government introduced strict new Water Quality Regulations in 1989, which effectively resulted in a considerable tightening of standards. In particular, most standards had to be met on a maximum basis, rather than the average compliance which had been previously allowed, and is still adopted in many countries around the world.

Severn Trent has been identified by the DWI in its Annual Report as one of the UK companies with the very best water quality record.

It is also interesting to note that although there are only a very small number of failures, most of these occur from samples taken at the customer's tap in the customer's own house. The quality of water leaving our water treatment works has compliance levels of >99.95%, with *exceedences* generally being in respect of manganese and iron from boreholes where treatment plants are currently being installed.

Failures from samples taken from service reservoirs are currently at 99.98 per cent compliance.

The failures at customer taps generally involve iron picked up from corroding distribution pipes and coliform failures resulting from customers' own apparatuses.

Sewage treatment

Again, the stakeholders in this area are similar to those of the drinking water quality, but in this case, the Drinking Water Inspectorate is replaced by the Environment Agency. Figure 6 shows the improvement in compliance with sewage effluent discharge permits. At the time of writing this paper (March 2000) Severn Trent has 100 per cent compliance at all at its 1,000+ sewage treatment works. The improvement in river water quality over the last 10 years has been dramatic, and has been marked by the return of otters to the river banks across the Severn Trent region, a species which has been missing for at least 30 years.

Both the Severn and the Trent are now salmon rivers and the transformation of the River Trent, which was once little more than an industrial sewer, has been dramatic. The waters have now improved to the point where not only salmon and seals are found in the tidal stretches but also local angling clubs are complaining that the river is too clean and the fishery is being transformed from a coarse fishery to a game fishery.

Employees

The first and most startling parameter with employees has been the fall in numbers. When the Severn Trent Water Authority was created in 1974 it had approximately 11,000 employees. At the time of privatisation this number had reduced to around 8,500 and currently there are 5,000 employees within the water company.

Plans for future *demanning* which have been announced indicate that a further 1,100 employees will be leaving the Company over the next two years. This is shown diagrammatically in Figure 7.

Figure 6
Government – Environment Agency
Number of non-compliant sewage works

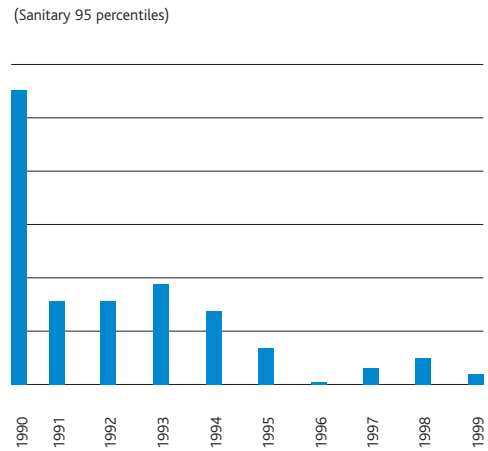


Figure 7
Employees – Manpower
Securing the efficiency position

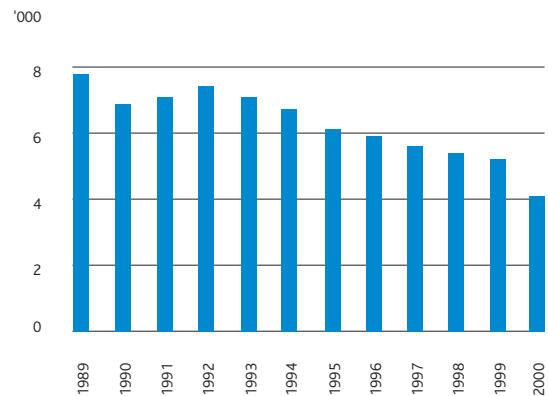
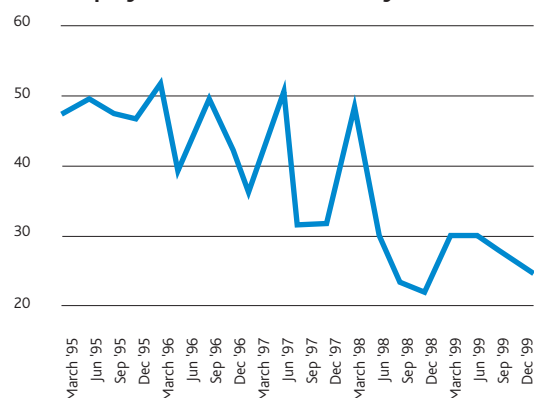


Figure 8
Employees – Health and Safety



The total numbers will increase by about 300 because of the transfer of approximately this number of staff from local municipalities in to the water company as Severn Trent takes over responsibility for operation of sewers which had previously been carried out by local municipalities on a sub-contracted basis.

Against this very significant reduction in manpower numbers has been an increase in remuneration, both direct and through indirect benefits to the point where Severn Trent was recognised in 1998 study as one of the top 100 companies in the UK in terms of its employee benefits package.

There has been much greater emphasis placed on the health and safety of employees and Figure 8 shows the trend in reportable employee accidents over the last five years.

The figures show a fall to our current figure of 24 accidents in a quarter. Most of these accidents arise from manual handling or slipping and tripping, but become reportable under UK Health and Safety Regulations because they lead to over three days' absence from work and the legislation does not allow us to provide alternative duties.

The Company undertakes an Annual Employee Satisfaction Survey which indicates overall trends and areas which are causing concern for our employees. The Company benchmarks the results of this survey against other leading companies in the UK and while the results have to remain confidential, the Company is well placed in comparison with the majority of its peers.

Conclusion

Since the creation of the Regional Water Authorities in 1974, there has been a substantial improvement in the quality of the Company's performance in terms of both potable water and sewage treatment.

Following privatisation in 1989 the pace of improvement quickened and there has been flow of benefit to virtually all stakeholders over that 10-year period.

More recently, the stock price has plunged as a result of the Regulatory Review which has benefited customers with a price reduction but left stockholders with a 50 per cent reduction in the value of their holding.

The quality achieved in both potable water and sewage treatment is now world class against parameters which are some of the toughest to be found.

There has been a significant downsizing in the number of employees, but the employee benefits are attractive for those employees who remain.

Overall, privatisation has delivered significant improvements across most aspects of the Company's performance and it is only the recent damage to the stock price that prevents universal benefits being claimed.

While some historic resentment lingers on over the loss of political control of the provision of water services, the arrangements that have evolved over the last 25 years have transformed the UK Water Industry and its performance stands comparison with that of any water industry in the world on the basis of data published by independent regulators.

Jerome Delli Priscoli, US Army Corps of Engineers WWC and Civil Society

Introduction

Good morning ladies and gentlemen and colleagues. I think this issue, *how the WWC relates to civil society*, is perhaps the most important issue the WWC faces. If the more than 5,000 participants at The Hague World Forum taught us anything, it taught us that there are many people, the powerful as well as the disenfranchised, who want and must participate in water decisions. This placed a marker for the WWC. Today I want to briefly speak of why and how the WWC should meet this marker and broaden its engagement with civil society. I offer four reasons and four suggested actions.

It is our tradition as water managers: There is a historic link between water and civil society

We all know how river flows have influenced the movement of civilisation. Evidence of functional cooperation or unification of states around a river basin can be found in Hammurabi's code on the operations of irrigation trenches, the Chinese Book of the Tang on the operation of water wheels and private reservoirs, and even Herodotus' stories of apportionment of waters in a river basin in Persia. In our modern era, the birth of Dutch democracy is based on the experience of decision making in local water boards.

Even a cursory look at Water and Civilisation shows that the interaction among the political/civic and technical is complex. The technical and water both lead and are lead by the political, and vice-versa. For example, in the modern West there are few figures more symbolically important in the realm of politics, engineering and art, than Niccolò Machiavelli and Leonardo da Vinci. The story of their collaboration to divert the Arno River and their Integrated Water Resources plan for the region illustrate how the technical and political are intertwined. That collaboration foreshadows the use of satellite imagery, and opens public debate among technical and political stakeholders, systems modeling and optimisation, and the triangle of technical administration, financing, and political power.

Environmental deficiencies, not abundance, explain the development of irrigation technology. And irrigation permitted the emergence of urban civilisation. One anthropologist states, "The remarkable fact about the origins of advanced agricultural economy and urban civilisation in the ancient world was its location in regions of limited water supply."¹ The city states of ancient Sumeria were basically irrigation units or provinces – some say irrigation cities.

At one end of a spectrum, Karl Wittfogel attributed the growth of centralised bureaucracy and autocratic rule to the increasing connection of water through irrigation and navigation. At the other end of the spectrum, researchers talk of how community irrigation engendered a democratic spirit and a sense of community.² For example, sixteenth and seventeenth century Spanish irrigation was generally initiated, organised and financed by local communities and built and maintained by them.³

1. Bennett, in James, 1974, p. 42.
2. Thomas F. Glick, *Irrigation and Society in Medieval Valencia*, the Belknap Press, Cambridge, Mass., 1970.
3. Smith, 1975, p. 24.

No matter how you come out on these historical debates, the point is: civilisation, the civil and political society, the *civitas*, cannot be seen in isolation from water management.

Today it is clearer than ever that building the physical water infrastructure in a collaborative and participatory way is now an important means for building the civic infrastructure and the civil society, or what many call the governance environment. Indeed, we should not forget that civil society, civic culture and civil engineering share common roots. The fountains of ancient Rome, like standpipes in small villages today or medieval cities of Europe, have played roles in building civic culture as well as quenching thirst. They have become occasions for civic dialogue and meeting places central to creating a sense of civic belonging and responsibility.

Whether it be irrigation associations, community water and sewage and even large-scale, multi-purpose river operations, water management forces us to connect and balance rights and responsibilities. Most democratic theorists see the experience of such balancing as central to development of civic society.⁴ WWC truly does have a mandate to engage civil society in water management.

We must engage civil society because all major water decisions have ethical implications – they are in fact statements of social ethics!

The control of water is the control of life and livelihood.⁵ Over the last two decades, several important International Conferences have called for an ethical commitment to provide for humanity's basic water needs: Mar del Plata in 1977⁶, the Rio Earth Summit in 1992, the UN-sponsored comprehensive assessment of the world's freshwater resources in 1997, and others. Linkages between water policy and ethics are increasingly found throughout the world. For example, the recent South African constitution links water access directly to human dignity. Indeed, recent challenges to traditional engineering approaches to water management have gained prominence primarily through ethical and moral appeals, usually driven by ecological or environmental values.

Ethical implications are clear in all aspects of water management decision making, such as: planning, regulating, operating, financing and investing, designing and implementing, and others. Ethical considerations concerning decision making and management tend to revolve around the following questions: who participates; what are the decisions they participate in; do they have access to formulating options or only to reacting to options already formulated; how and what type of opportunity costs are considered; what is the basis of valuing, implicit or explicit, in trade-off decisions; what level and type of information is open to the public; to what extent are impacts included or how are they characterised; in what way do professionals interact with non-professionals; and what is the use, as well as misuse, of technical and professional information?

Debates around water resources management also mirror broader debates of social ethics. The social context of ethical questions concerning water tends to revolve around notions of water as a common good, water and its connection to

human dignity and basic needs for life, water as a facilitator of well-being of people, rights and responsibility toward water access, water and social justice, and the wealth-generating and development roles of water infrastructure.

While difficult to define an actual number, there is a human right to water to sustain life. And there is a fundamental human ethical responsibility for managing that water along with this right. Meaningful participation of stakeholders, especially women, in many parts of the world, is a necessary condition to realise these rights and responsibilities. So too are transparency of decision making, and participation in that decision making.

Ultimately, water management is regional. Most responses to water require finding a balance among uses and among traditional and technological solutions, and will differ among regions. However, many actors influencing regional management are powerful international corporations whose agendas must be adjusted to serve rather than dominate these regional needs.

More data, better use of the data, and public access to water data is an ethical imperative. This is particularly true for the anticipation and mitigation of floods and drought and to prevent these natural hazards from turning into humanitarian disasters. While conflict over water can lead to violence, the history of water management is far more of forcing humans to build practical *communitarian* ethics.

These issues are familiar to all of us. They all have ethical implications. They show clearly that water is one of our enduring human symbols of life, regeneration, purity and hope. It is one of our potent links with the sacred, with nature, and with our cultural inheritance. This is a powerful imperative for the WWC to broaden its engagement with civil society.

To find a path between the schizophrenia of empowerment vs. alienation, participation vs. globalisation

Clichés abound: we are in the *Internet age*, the *age of information management*; *democracy is on the move*, all *people must have a say in decisions* affecting their lives. Well for those of us working in the water arena they are true. In my country for any issue on any given day I can find an equal and opposite PhD!! With cheap satellite data it is hard for one state to keep flow secret from another. The little old lady in tennis shoes, whom we used to refer to, now comes to public meetings armed with a PC spewing forth the latest data and algorithms fresh of the Internet and they sometimes are better than what the engineers bring! Indeed, the very basis of professional decision making has changed from paternalism, "I, the engineer, will take care of you," to informed consent, "I, the user, need your expertise but we will jointly decide."

But there is another and opposite side to this new world of empowerment. It is the world of alienation fostered by Globalisation. It too appears in our work. Our Vision exercise has woven a story of massive needs for capital, more than \$160 billion/year by 2025, a major switch of water uses between sectors, and a major percentage of that capital from the private sector. But how are we experiencing this change? Most privatisation (80%) has been in middle-income, not poor, countries. It has been carried out by only a few large firms – firms that tend to buy-out local partners in joint ventures: increased tariffs and decreased employment.

4. Ben Barber, *Strong Democracy*.

5. Colin Ward, *Reflected in Water: A Crisis of Social Responsibility*, Cassell, London, 1997, p. 32.

6. See Peter H. Glick, *The World's Water. The Biennial Report on Freshwater Resources*, Island Press, Washington, D.C., 1998, p. 42.

While these may be necessary, in an economic sense, it is no wonder we see riots in Bolivia over contract negotiations that exclude the poor or in marshal law in the Philippines over water law. We see a great fear that faceless global organizations, for global reasons, push solutions on local problems and run over what are felt as local public rights. And this is not limited to the giant water firms. Increasingly it applies also to global environmental NGOs who are often more comfortable with corporate board-rooms of the water firms than the local areas they seek to preserve. They, too, have global agendas often experienced as running over local rights.

Globalisation, in short, seems to bring a new paternalism that says: we are here to take care of you, don't say much, just listen to us and you will be OK. The schizophrenia between empowerment and alienation is alive and well in our own water business. WWC should lead the way to finding paths between them.

Engaging humanity's great debate:

How to co-design our ecology

Ethical norms for water policy need more explicit debate on their underlying assumptions of nature and history. Since nature is constantly changing, we must avoid blindly following equilibrium and status quo notions of nature. We need to engage in active and conscious co-design of what we think nature and the water resources should be and the criteria used to describe such ends or goals.

Indeed, very little of earth is natural or completely unaffected by human influences and almost all is managed, intentionally or unintentionally. A new awareness of how humans are co-managing ecosystems with traditional methods is needed. This requires better integration of ecological values with traditional economic values, which themselves are often distorted by subsidies for uses. Claiming to preserve a state of nature or to separate human interventions from a perceived state of nature can be as unethical as ignoring human impacts on the ecosystem.

In short, we are in a new era. We humans are becoming conscious that we are part of nature: that we are nature becoming conscious of itself and actually consciously designing itself. This presents us with an awesome responsibility – choosing and co-designing our ecology. Such decisions cannot be left to a professional elite; they require a new dialogue among that elite and civil society. I believe the WWC should facilitate such dialogue.

So what should WWC do?

The WWC has claimed the lofty ground of "world think tank" on water policy. What could be more central than thinking about these issues: of civil society and water; of finding the balance between the schizophrenia between empowerment and powerlessness? I think that the WWC should take the following actions.

1. The WWC should broaden its membership base of NGOs

In an age where expert citizen relationships are changing – where we are moving from paternalism to informed consent – no serious think tank in water can be considered serious or credible without significant and accountable attempts at inclusion of this sort.

WWC must actively reach out to civil society. This means not only to the environmental, but also other groups such as labour, community groups and others. It should also build on the scientific NGOs already present.

The WWC needs to develop and implement an outreach plan or as we call it a participation plan. It needs to invite participation of groups that should and want to participate but cannot, and provide the means to do so. This will mean devising forms of subsidies for those who have no resources. As part of this outreach plan, the WWC should consider an NGO-civil society advisory committee.

2. The WWC must begin to model the civil norms and values it recommends to others

No organisation can go on telling others to act in ways that it does not act. Such dissonance between "do what we say but not what we do" is the ultimate form of paternalism – and this has little place in today's world. All around us it is dying. The civil values of openness, transparency and meaningful participation in decisions are central to the world consensus on water management principles. The WWC must internalise and act in concert with these values. If it does not it will be seen as a meaningless anachronism or, worse, a retrogressive force.

The WWC should invite observation of civil society and NGOs to the Board of Governors' deliberations. It should use electronic dialogue on important issues leading up to those deliberations so that a broad spectrum of the world may monitor, contribute to and inform these deliberations. The WWC-BOG needs to clarify the latitude of its executive council. Executive decisions should be open to the same scrutiny and access to civil society as suggested for the BOG.

3. The WWC must actively seek rather than passively react to civil society

The Hague World Forum clearly showed the great interest in and the breath of groups who feel strong stakes in water decisions. Only a generation ago many of these decisions were seen to be in the purview of the professional elite. The Hague showed us that this age is gone – even at the World level. And The Hague was only the tip of the iceberg. The feeling is much deeper and broader. The WWC needs to heed the clear critique coming from the tips of this iceberg that the WWC appears as a group of grey old elites who talk to and about stakeholders but not with them.

The WWC should devise and sponsor new interactive forums and dialogues on critical issues with representatives of civil society. And these forums should actually engage elites with such representatives – directly. The agenda of these forums/dialogues should be driven, in partnership, with other professional associations such as GWP, IWRA, and various other NGOs.

4. Dealing with event "burnout"

Many people question the need to keep redoing large world events. Indeed, most of the world's professionals have heard and understand the growing world consensus of principles. The challenge is implementation. For large events to be meaningful they must now contribute to the implementation of these principles. Civil society holds some major keys to implementation.

The WWC should work to focus on the themes of implementation for the Third World Forum. In doing so it should encourage a new form of interaction and dialogue at that Forum – which builds on the experience of some of The Hague's lively, smaller workshops. It should also facilitate the presence of representatives of an even broader cross-section of civil society and engage such representatives on implementation.

Conclusions

Over two thousand years earlier, the Chinese philosopher, Lao Tse, said it best:

The sage's transformation of the World arises from solving the problem of water. If water is united, the human heart will be corrected. If water is pure and clean, the heart of the people will readily be unified and desirous of cleanliness. Even when the citizenry's heart is changed, their conduct will not be deprived.... The pivot (of work) is water.⁷

Water has been humanities' learning ground for building community far more than a cause of war and large-scale violence. Water has formed society far more than we realise. In claiming the ground of the world's think tank, the WWC has taken on the responsibility of facilitating dialogue and partnership between professional elites, managers and civil society. It has taken on the responsibility to pick up the modern form of this challenge not to just claim benefits. It has taken on the responsibility to help society find paths to reclaim the "civil" in civil engineering and water management – to provide meaning to the "civil" in civil society. To use its convening power and influence to provide the opportunity and experience for building new civic culture based on democratic values of participation.

These are noble ambitions and awesome responsibilities. If we in the WWC do not move on them, someone else will.

Jean-Yves Pirot, IUCN

The World Commission on Dams and Rio+10

I have just come from Amman, Jordan, where IUCN – The World Conservation Union and its 900 State and NGO members recently held their 2nd World Conservation Congress, which was convened at the invitation of our Patron H.M. Queen Noor Al-Hussein.

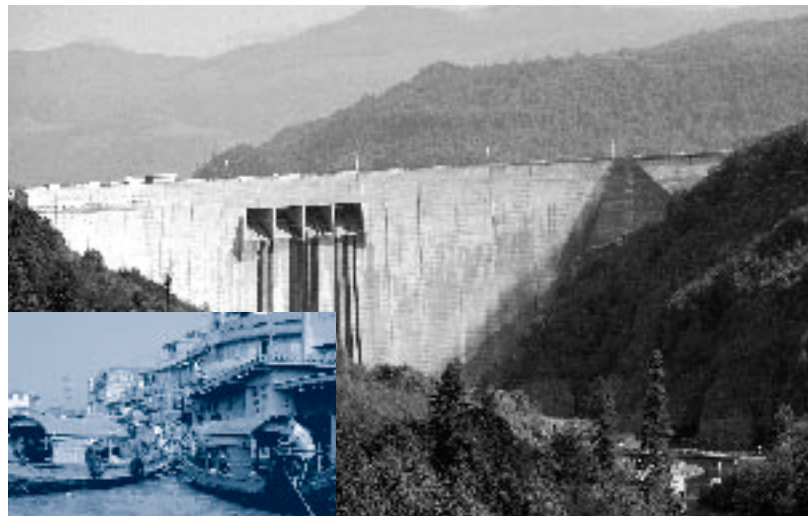
One of the outcomes of this Congress is the approval of the IUCN Programme for the next four years. This new programme has been refocused to forcefully address the extinction crisis of species and the degradation of ecosystems.

The restoration of freshwater ecosystems and IUCN's support towards the implementation of several agreements and processes addressing water issues (such as the Convention on Biological Diversity [CBD], the Convention on Wetlands of International Importance, especially as Waterfowl Habitat [Ramsar], and the United Nations Convention on Sustainable Development [UNCSD], etc.) now features very prominently in the new IUCN Programme.

Hence, IUCN is committed to develop and promote policies on freshwater ecosystems relating to wetland restoration, water loss, dams, optimal flow regimes, environmental impacts and incentives. At the field level for example, by 2010, we aim at ensuring that an increasing number of

7. Quoted in Warshall, Spring 1995, p. 5.

8. Editor's Note: The WCD Report was launched as indicated in London, but simultaneously in centres around the world. A Summary of the report, entitled *Dams and Development – A New Framework for Decision-Making*, are available in ten languages on the WCD website: < www.dams.org >.



river basin authorities, supported by networks of experts and stakeholders, have the capacity to carry out socially and ecologically sound biodiversity conservation programmes that will foster improved Integrated Water Resources Management – the very practical goal of the Global Water Partnership.

Our vision of "a just world that values and conserves nature" will guide this work.

The World Water Council, together with the GWP, features prominently among 15 (or so) global environmental agreements and processes to which IUCN has committed its support. This being said, our strongly refocused niche requires, unfortunately, that the IUCN Council and our Director General carefully reassess our involvement in nearly all conventions and policy-making instruments.

And the World Water Council is no exception, despite the fact that IUCN enjoys the privilege of being a permanent Member of the Board of Governors.

Our assessment will take into account the Council's commitment to incorporate the full environmental dimension in integrated water resources management. We would also like to see the Council engage in a strategic partnership with IUCN members (especially with some of our 70 State members) to promote part of, or even all of what is recommended in the Vision for Water and Nature that was compiled by IUCN on behalf of the Council.

The Council can achieve this by involving itself forcefully in two important issues and forums, and here I am referring to the forthcoming report from the World Commission on Dams (WCD) and the planned global meeting so far entitled Rio+10.

I will briefly elaborate on both events, starting with the World Commission on Dams.

The World Commission on Dams

In 1997, in an attempt to implement several IUCN resolutions addressing the environmental and social costs of infrastructure development, IUCN and the World Bank facilitated the creation of the World Commission on Dams. This is a concrete example of how stakeholders (government, affected people, private sector and donors) can interact to develop new public policies for dam planning, development, and management. The Commission's report is to be launched in mid-November in London by former President Nelson Mandela⁸. It establishes criteria and guidelines that will lead to development outcomes that are economically viable and socially as well as environmentally acceptable.

IUCN is bound to make renewed efforts to implement the Commission's guidance where appropriate⁹. We would also like to see the Council adopt a clear position on this matter, and assist, again where appropriate, in the dissemination and implementation of these guidelines. This should perhaps include the participation of the Council in the WCD Forum – a stakeholder forum which will meet in February 2001 to discuss further actions regarding the guidelines.

Rio+10

In 2002, at a venue still to be decided, key environmental governmental and non-governmental players will gather to take stock of the progress made since the 1992 Conference on Environment and Development.

Many prominent institutions with a mandate on water issues (such as the World Bank or GEF) have already committed themselves to undertake a systematic re-examination on how the Water Resources Programme under Agenda 21 has been implemented in the past 10 years. IUCN will be part of this alliance and already discussions have taken place among partners on the work and mechanisms necessary to contribute usefully to Rio+10. We strongly believe that the World Water Council should also be part of this assessment, and ultimately contribute to the meeting by offering guidance on the implementation of the many recommendations adopted by the 2nd World Water Forum in The Hague.

Other issues for discussion will likely include: species extinction, the diffuse global environmental institutional system, and environment and security. In relation to the latter, we have to realise that the sustainable and equitable use of water resources provides the basis, at local, national and regional levels, for environmental, social and economic security, which is, as H.M. Queen Noor said at her opening address to the 4,000 participants of the IUCN Congress: *a security that is essential for bringing and maintaining peace.*

Therefore, it seems to IUCN that the Council should make a substantive contribution to the programme and, subsequently, to the discussions on water and security at Rio+10.

IUCN very much believes that the World Water Council should guide the world's thinking on critical water issues. At this stage, however, we believe that the Council should also make thematic contributions to other think tanks and global discussion processes, outside of its own specific agenda.

The Director General of IUCN expects that this important meeting in Marseilles will indeed confirm such roles for the Council. In that case, on behalf of our Director General, I renew and reaffirm IUCN's pledge of support to the World Water Council.

Olcay Ünver

GAP Regional Development Administration,
Turkey

Southeastern Anatolia faces many of the problems that are typical of underdeveloped regions in the world. Compared with the rest of Turkey, the region has had higher fertility rates and lower literacy rates. The region also experienced net out-migration – both seasonal agricultural migration and permanent rural-to-urban out-migration – as a response to high unemployment in the region. The region's economy is

based largely on agriculture, but productivity historically has been low. In 1935, per capita income in the region was half of the national average, and the region, which has 10% of the country's area and population, accounted for only 4% of the GNP. This region also has several urban centres that are experiencing rapid growth, and that have had problems keeping infrastructure development in pace with rural-urban migration. So the region presents challenges in terms of both rural and urban development.

In response to these disparities in the Southeast, and in recognition that strengthening this region socially and economically will benefit all of Turkey, the Southeastern Anatolia Project (GAP) was created. GAP was originally created as a water resources development package for the construction of 13 main irrigation and energy projects on the Euphrates and Tigris river basins. The project includes 22 dams, 19 hydropower plants, and irrigation networks to irrigate 1.7 million hectares of land.

The GAP Regional Development Administration's (RDA) focus on sustainable human development in the region builds upon the concept of integrated regional development of the GAP Master Plan of 1989. In order to implement the principles set out in this Master Plan, the GAP Regional Development Administration was created to co-ordinate the implementation, management, monitoring, and evaluation of development-related activities, in a concerted effort to respond to the problems I mentioned earlier. The subsequent Social Action Plan of 1995 was a major step toward a greater integration of sustainable development with socio-economic and infrastructure projects.

The international financial involvement in the GAP Project is a reflection of international commitments to sustainable development in this region. The term "sustainable development" refers to the creation of an environment that safeguards life and provides basic needs while conserving resources for the development needs of future generations. It is a concept that encompasses many dimensions, including the sustainable use of environmental, social, economic, cultural and spatial resources.

Sustainable human development, as formulated by the GAP-RDA for Southeastern Anatolia, and espoused at such international conventions as the 1992 Conference on Environment and Development in Rio de Janeiro, encompasses such goals as reaching the poorest, gender equity, capacity building for local institutions, and environmental protection.

It is from this philosophy that GAP-RDA derives its human-centred focus, using the momentum gained from hydropower and irrigation infrastructure projects to bring opportunities for more sustainable livelihoods to as many in the GAP Region as possible.

GAP-RDA is responding to its changing environment and refining its perspective on sustainable development through its experiences over the last ten years and through its relationships in the national and international development community.

We are currently co-ordinating a revision of the 1989 Master Plan through a participatory regional review. By gathering information and opinions through public meetings and other mechanisms for facilitating stakeholder input, we will develop a new participatory regional development plan that more fully incorporates everyone's vision for the GAP Region. This new plan will enable GAP to more fully incorporate the internationally accepted principles of sustainable development, and will be flexible enough to respond to changing needs and opportunities for the next ten years.

9. Editor's Note: Indeed a resolution on this very subject, passed at the Amman Congress, requires IUCN to develop follow-up response to the work of the WCD.

As we learn from our experience and continue to interact with a wide range of stakeholders at the local level, as well as at the international level, we can hope to bring even more effective, more equitable, and more sustainable ways of bringing prosperity to the GAP Region and to Turkey.

The World Water Vision, compiled by the World Water Council earlier this year (2000), identifies three primary objectives for integrated water resource management (p. xxv). These objectives are:

1. Empowering women and men
2. Producing more food and using water more productively, and
3. Conserving ecosystems.

As the GAP Project has progressed, we have applied the principles of sustainable development to a variety of activities ranging from marketing studies for new agricultural products to establishing women's community centres in poor neighbourhoods. I have some brief case studies organised by the three objectives from the World Water Vision, and will use them as a springboard into the issues of integration at the local, national and international levels.

Empowering women and men

Case: CATOM. GAP-RDA supports a grassroots program by creating community-based women's centres, called "CATOM." At these centres women and girls can receive health care services and gain skills in areas such as maternal and child health, hygiene, nutrition, home economics and income generation (such as handicrafts, computer operation, greenhouses, etc.). Literacy instruction and mobile health care services are also provided. The centres provide a place for women to get together, discuss their common problems, and develop a collective initiative to solve these problems. The participants themselves share in running the centre and in deciding on the programs that will be offered. This program is a good example of co-ordination with local institutions, as local government authorities themselves ask us to establish new CATOMs in their communities. However, we are learning how much more needs to be done in terms of capacity building and gender streamlining.

Producing more food and using water more productively

Case: MOM. Traditional farming methods for rainfed lands don't make the best use of irrigation, so GAP has co-ordinated a project for the training of local farmers and their organisation into water user groups with the responsibility for planning among themselves their use of the available water. The pilot project using this model resulted in water savings of 11%. Participating farmers who produced vegetables in rotation realised incomes five to fifteen times that of cotton growers, and crop intensity in demonstration areas increased up to 170%.

The project provides advice and training to local farmers who have formed local water user groups. These water user groups collectively manage the end use of irrigation, collect payments for irrigation services, and engage in other participatory activities. Recent projects that tested this management model in the GAP Region showed an 11% savings in water use and an increase of 177.5% in cropping intensity due to the shift to growing two crops per year.

We have also co-ordinated marketing studies for identifying new crop varieties that need less water, and that can generate more income in the region. However, the issues

that we now face involve capacity building for line ministries so that they are able to support water user initiatives on a region-wide scale, and cost recovery for irrigation where farmers have been led to expect irrigation for next to nothing.

Conserving ecosystems

Two projects that are just beginning in the GAP Region address environmental issues in different ways. One of these projects, a local implementation of Local Agenda 21, is now in the initial stages of meeting with all local stakeholders to increase awareness of environmental issues and to explore ways to translate the Local Agenda 21 principles into local application.

Running water

carries no poison.

Turkish proverb

Another project that is just beginning involves the design of systems for the reuse of waste water in irrigation in mid-sized towns. This project includes the exploration of means for local community involvement to ensure sustainability, and lessons learned from this experience will be applied to waste water reuse in other towns in the region.

However, one of the major issues we face relates to the institutional capacity on the part of government agencies to support environmentally sustainable initiatives, when most agencies have not yet adopted environmental sustainability as a goal in their own organisational mission.

In all the cases I have just presented, some of the overriding issues are:

• Scaling up:

Pilot projects and demonstration projects are not enough. When we hit on a successful concept, such as water users' groups or women's community centres, we need to expand this quickly so that more communities that have been desperately waiting for help can enjoy the benefits of the project. But scaling up requires co-operation with line ministries, and if these ministries are not structured to quickly adapt new learning and to redirect their efforts, the impact of these pilot projects remains limited.

• Institutionalising sustainability:

Sustainability, by definition, implies long-term stability. This in turn implies that institutions, not just individuals, are key actors. The success of sustainable integrated development depends on the ability of public institutions to incorporate the concepts of sustainability, adapt to changing environments, and to optimise their co-operation with other institutions, whether they are public, commercial, or non-profit. Sustainability also depends on these diverse actors (individuals and institutions) sharing the same approach, philosophy, terminology, and goals. In practice, however, these institutions vary greatly in their interpretation of sustainability and related concepts, and vary in their capacity to implement these concepts consistently.

• Co-ordination at multiple levels:

Development is hampered by the fragmentation of efforts among agencies, sectors and regions. This fragmentation is the result of a way of thinking about public administration that distributes discrete functions among specific agencies and departments, and creates situations where agencies are at best reinventing the wheel, and at worst are at cross purposes. Co-ordination across the boundaries that have been established by conventional thinking is essential in order to ensure ongoing sustainable development where information and know-how are shared in a complementary fashion for optimal effectiveness.

GAP-RDA is unique among public institutions in Turkey because of its regional focus and its goal for sustainable development. Although this presents unique opportunities to GAP-RDA for directly linking international resources to local projects, and for relative freedom of movement among the private, academic and NGO sectors in Turkey, co-ordination with other government agencies has often been hindered because of this arrangement. Public administration in Turkey has traditionally been centrally focused, although this is now beginning to change.

Our experience has taught us that the problems of co-ordination and integration are not simple. Attempting to bring diverse organizations together for shared tasks requires someone to take the co-ordinating role, but it also requires the different stakeholders to talk to each other, share information and resources, and agree on common objectives.

Question: How many psychiatrists does it take to change a light bulb? Answer: Only one, but the light bulb must WANT to change.

We face the seemingly contradictory needs for decentralisation (to move decision making down the hierarchy to be closer to constituents) and for better co-ordination (to channel information and decisions through centralised hubs). Decentralisation often implies the creation of more institutions, and the need for co-ordination points up the communication problems between the institutions that already exist. Nevertheless, decision making must be more accessible to the grassroots, and information networks must be stronger and more wide-reaching across sectors and across levels.

John Pigram, Centre for Water Policy Relations With Professional Water Associations

The World Water Council encompasses a multiplicity of professional water and water-related associations and the number appears to be growing. Personally, I am involved with at least a dozen of these organisations; for example, the International Water Resources Association (IWRA); the Global Water Partnership (GWP); the Rosenberg International Water Policy Forum; the Water and Resource Economics Consortium; the Club of Tokyo; the International Commission on Irrigation and Drainage (ICID); plus a number of national bodies, and specially focused groups concerned with hydrology, meteorology, desalination, large dams, *et cetera*.

This bewildering array of organisations poses a challenge for the World Water Council in forming alliances which add value and create synergy without duplicating established constituencies. The role of the Council is to identify and explore water policy options and then use established networks as a conduit to decision makers. The Council's role thus becomes complementary rather than competitive; mutually supportive rather than confrontational. A partnership approach should mark the collaborative relationship between the Council and a professional association. In this way, the backing of the World Water Council should help bridge the gap which typically exists between policy formulation and policy implementation. Without this, the Council will remain a policy "think-tank": long on rhetoric; short on action, influence or achieving results.

My particular focus, as Vice-President and President-Elect of the International Water Resources Association, is

the relationship between the Association and the World Water Council.

This, of course, began as a very close, almost incestuous relationship. Many would recall the formation of the Council, formalised at the 8th World Water Congress of the IWRA in Cairo in 1994. The Council was never seen as a rival for its parent body, nor as a replacement for the IWRA. The two worked closely together in those formative years, with the 1st World Water Forum held in Marrakech in March 1997. The First General Assembly of the Council followed as a major event at the 9th World Water Congress of the IWRA in Montreal in September 1997. However, since then strains have developed, especially with the decision to schedule the 2nd World Water Forum in The Hague in March this year, almost overlapping with the 10th World Water Congress of the IWRA in Melbourne, Australia.

With enormous effort and strong sponsorship, the Congress organisers, of which I was Chair, managed to attract more than 500 participants to Melbourne from 47 countries. Many leading figures in the world of water came to Melbourne; some heroically were able to attend both the Congress and the Forum; a large number of people from the Northern Hemisphere understandably chose to bypass the IWRA meeting in favour of The Hague Forum.

This coincidence of events was unfortunate and regrettable, all the more so because it could have been avoided. Melbourne was selected as the site for the IWRA Congress and the dates set at a meeting of the IWRA Board in Chicago in 1996. Subsequently, I invited the World Water Council to hold the 2nd World Water Forum as part of the Melbourne Congress. Some Governors will remember how this approach was overwhelmed by the submission from the Netherlands accompanied by a glossy brochure and the promise of some US\$14 million of funding support. The outcome, of course was predictable – a most successful Forum in The Hague overshadowing an IWRA Congress of more modest dimensions in Melbourne.

So, where does this sequence of events leave the World Water Council with respect to other water organisations and the International Water Resources Association, in particular?

The lesson to be learned, I believe, is for the Council to redefine itself and its relationship with other organisations, exploring every opportunity for collaboration and cooperation. As incoming IWRA President and re-elected to the Council Board of Governors, it is my intention to try to build bridges and remove barriers to working together. For example, I hope and expect that the International Water Resources Association can have an honoured place in the 3rd World Water Forum in Japan in March 2003. Subsequently, I hope and anticipate that the World Water Council will be a key participant in the 11th World Water Congress of the IWRA in Madrid in October 2003. These events and others will be the testing ground for a new era in supportive partnership. Without this both bodies may be compromised.

This example is only one specific opportunity for working better together. There are many others where the World Water Council can exercise its legitimate role, in tandem with appropriate professional associations, to lead the work in enlightened policy approaches to better practice in water management. We read a lot about globalisation – both as a threat and a promise. From my perspective, the World Water Council should act as the vehicle for positive "globalisation" – of expertise in water policy and management and for harnessing and applying science and technology for the mitigation of water problems.

Here the reference is to science and technology in the broadest sense – not just so-called “hard science,” but to the social sciences, resource economics, and ecology, refashioned as ecological economics; and not merely to structural technology, but to information technology, adaptive environmental management, ecological agriculture, diffusion of innovative approaches to water management, and multi-objective resource use.

Articles 2 and 3 of the Constitution of the World Water Council commit the organisation to identify and raise awareness of critical water issues, and to the creation of an international network to improve co-ordination and the exchange of information in the water sector. Rather than “reinventing the wheel,” the Council should work with and through established networks to achieve these objectives.

However, a note of caution is advisable. Writing recently in the IWRA journal, *Water International* (September 2000), Professor Asit Biswas comments regarding international professional associations: “There are far too many rivalries, too many personal and institutional vested interests, and too many rapid changes in their leaderships to make any real co-ordination possible on a long-term basis. Thus, for years to come, real co-ordination is unlikely to happen. Continued lip service will be given to the importance and necessity of co-ordination, leadership etc. but there is unlikely to be any real progress.”

Lilia O. Ramos, Approtech Asia Relations with Civil Society

It is with great interest that I note that as the World Water Council considers its way forward, it has placed importance on the issue of its relationship with civil society. This is an issue both timely and relevant and has also become a focus of concern from civil society organizations to decision makers to world leaders.

In this connection, I'd like to mention relevant quotes from the Ministerial Declaration of The Hague on Water Security in the 21st Century. It states that in meeting the challenges, “We will work together with other stakeholders to develop a stronger water culture through greater awareness and commitment... We will further advance the process of collaboration in order to turn agreed principles into action, based on partnerships and synergies among the government, citizens and other stakeholders... The challenges are formidable but so are the opportunities. What is needed is for us to work together, to develop collaboration and partnerships, to build a secure and sustainable water future... We will individually, and acting together, strive to achieve this and stimulate and facilitate the contributions of society as a whole.”

And in the UN Millennium Declaration, during the Summit of World Leaders convened by the United Nations in September 2000, among other commitments it resolved, “by the year 2015, ... to halve the proportion of people who are unable to reach or afford safe drinking water,” and resolved further to develop strong partnerships with the private sector and with civil society organizations in pursuit of development and poverty eradication.

The Global Water Partnership Framework for Action “embraces a broader cross-section of stakeholders’ views, through consultation involving NGOs, trade unions and sector vision representatives.”

VISION 21 – Water for People, of the Water Supply and Sanitation Collaborative Council (WSSCC), emphasises synergy of action as one of its core points and underscores that collaboration is the way to greater synergy. It also advocates collaboration between government and civil society, which holds enormous potential for combining strengths of specific approaches and skills which each of the partners have with respect to ensuring services, as well as preserving the quality of the natural environment.

The WSSCC has also created a working group on Community Management and Partnerships with Civil Society.

The International Secretariat for Water (ISW), an international NGO, develops joint activities which strengthen institutions and promote information and experience exchange among various constituencies of civil society. Through its networking and linking efforts, it stimulates efforts in community water management, with strong emphasis on reinforcement of indigenous appropriate technology, partnerships with civil society and innovative financing for such community management systems. It facilitated partnerships between local communities, NGOs, and decision makers by organising interaction meetings among these. It educates civil society on water issues through exhibitions and information campaigns.

APPROTECH ASIA and its network of NGOs from eleven Asian countries has collaborated with local governments and other constituencies of civil society (business, media, and other social institutions) to ensure financial, legal and technological supports for the sustainability of locally-managed water systems.

ISW and APPROTECH ASIA have prepared an Issue Paper on Water and Civil Society, as discussed in their joint International Workshop on Strategies for Sustainable and Equitable Development and Financing, organised in Manila, Philippines, in May 1994.

Civil society participation is central to any agenda for social development; more so in sustainable water resources development.

We cannot talk about civil society's role without elaborating on the initiatives of NGOs and civil society organisations in addressing the issues of water resources development and in translating vision into action.

I would like to emphasise in this commentary, the role of NGOs and their networks in the global water problem and their possible contribution to the World Water Council's efforts in ensuring water for a sustainable future. NGOs come in all shapes and sizes – from little NGOs (LINGOs) to big NGOs (BINGOs). Whether they are little or big NGOs, what is important is that they are grassroots-oriented, credible, accountable and transparent. NGOs with a strong network, whose systems are in place, can provide the delivery mechanism which can facilitate programs and services and can provide significant contributions to WWC in pursuing its mission and objectives, as well as such council activities as the “preparation and organisation of training activities with respect to water issues, and ... the creation of an international network, to improve co-ordination, the exchange of information and other necessary activities in the water sector.”

As the WWC moves beyond vision, it should strengthen its relationship with civil society and collaboration with NGOs.

Firstly, NGOs provide the link between the communities, with whom they directly interact, and the policy and decision-makers – nationally, regionally and globally. This link enables the flow of information from the communities on their water resource needs to other agencies and financial or other resource providers. This link, moreover, stimulates the government agencies responsible for water use to open to decentralised, local or community-managed water systems instead of large-scale, centralised modes of water supply and distribution.

Secondly, NGOs generate and enhance local capacities for community-managed water systems. Although there are inherent or indigenous capacities in certain communities, there is a need to fuse these with appropriate technology and management know-how derived from other communities' experiences. Time and again, it has been proven that, if given appropriate training, financing and the organisational infrastructure, local communities can manage their own affairs, including an appropriate water supply for every household in need.

Thirdly, NGOs have the ability to network and synergise with other NGOs and various constituencies of civil society, to influence not only local or national programs, but also global programs affecting several countries and international development.

Fourthly, NGOs are needed to establish supportive mechanisms for sustainability of the programs, which can make clean water available to more people.

I am pleased to learn that Ms. Ceylan Orhun, the founder of ANAKULTUR, a highly regarded NGO in Turkey, has been elected to the WWC Board of Governors. I am sure that her presence will be of great benefit to the Board and will further strengthen the Council's relationship with civil society.

As the WWC considers its plans and strategies for the next Triennium, it should consider broadening its constituencies to include NGOs. NGOs specifically can contribute, for instance, in making a survey study on who is doing what in community management of water resources and identify the best practices. They can also help promote international cooperation on capacity building and information technology in developing countries.

As I end my commentary, I would like to congratulate the newly elected Board of Directors and as the Council moves forward, I wish it success and offer our support in working together in translating vision to action and in promoting a sustainable water resources development.

Khalid Mohtadullah,
Global Water Partnership
 Towards Complementarity and Synergy
 Between GWP and WWC

[Editor's Note: The presentation by Khalid Mohtadullah was in the form of a PowerPoint slide show and has been rendered into rough speaking notes for presentation here. For a summary of his comments, see the Report of Session 3 in Part 1.]

The topic of this presentation is "Towards Complementarity and Synergy between GWP and WWC"; however, recognising that if we do not succeed, there will be no place for two public policy networks to exist.

The aims of the presentation are:

1. To strengthen relationships between GWP and WWC for improving water resources policy management

2. To clarify the present role of GWP in Integrated Water Resources Management
3. To create a more congenial environment in which to synergise the work of the two organisations

GWP's principal mandate is facilitating strategic assistance on Integrated Water Resource Management (IWRM) along the lines shown in Figure 1.

Primary and secondary actors in the collaboration to deliver IWRM are depicted in Figure 2.

GWP works through a global network of regional partners, as depicted in Figure 3.

The role of GWP in follow-up to the Vision and the discussions and decisions taken at The Hague can be summarised as shown in Figure 4.

**Objective of GWP's Action Programme
 (Post-Hague Role of GWP)**

The GWP's objective is to overcome the barriers to change and to facilitate the implementation of the four areas of action derived from the Framework for Action (FFA) by:

- Making water governance effective
 - Generating water wisdom
 - Tackling urgent water priorities
 - Investing for a secure water future
- Inter-related outputs which are being prioritised by GWP (in the context of IWRM) include:
- Strengthening the movement for water security
 - Building consensus on hot topics
 - Promoting good practices
 - Prioritising actions
 - Building strategic alliances

The way forward for GWP and WWC is seen as a synergistic approach:

This is how GWP sees its current Agenda:

- Both GWP and WWC have to find optimal working relationships in order to advance The Hague and Vision agenda
- GWP has gained momentum and, within the FFA, a good measure of agreement on what we must now accomplish
- GWP is generating, documenting, managing, and disseminating/facilitating know-how on IWRM
- GWP is also translating to the user level the global principles, the tools, the processes and the building blocks of IWRM

While it is for WWC members to set the WWC mandate, from GWP's perspective this is what WWC's agenda should include:

- We believe that considerable resources invested to date in the FFA should be validated by WWC. It should also use the FFA as the ongoing framework document – of course, changes and adjustments are welcome.
- It would cause a great deal of confusion if other frameworks for action were also developed.
- More importantly, the FFA has more than enough work in it for everyone.
- The challenge is to figure out institutional advantages for the constituents' parts.
- It is not only the unresolved issues, but the resolved ones also need attention, such as the following:
 - How are countries and players going to be motivated to implement the resolved issues?
 - What role can and will WWC play in the policy advocacy process?

Figure 1
GWP's Principal Mandate

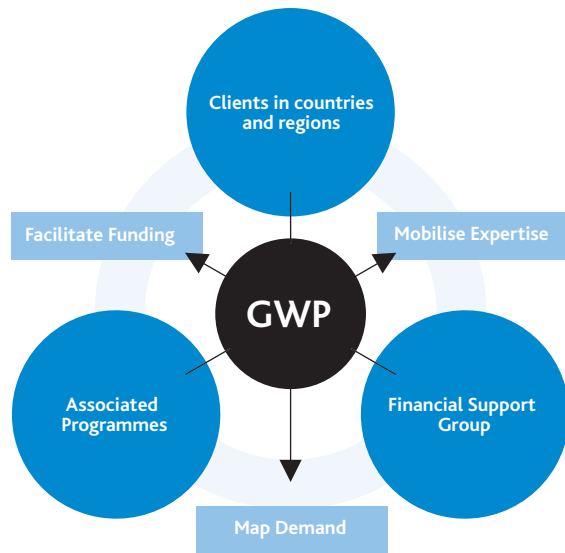


Figure 2
Primary and Supporting Actors in collaboration to deliver IWRM

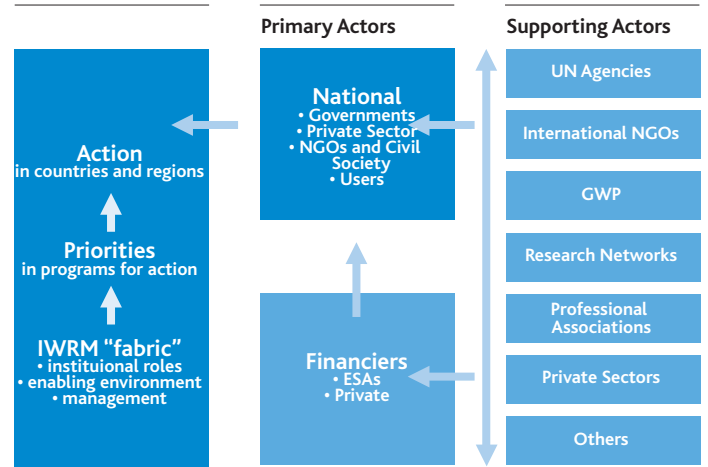


Figure 3
GWP's Regional Partnerships

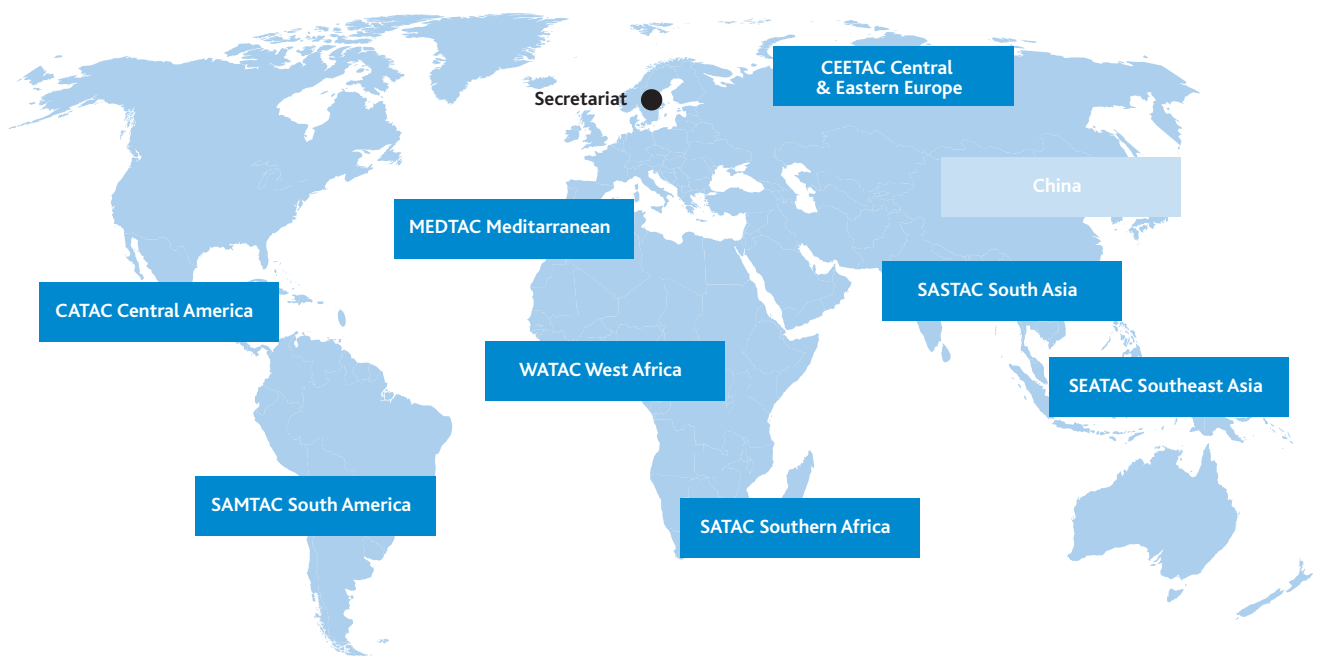
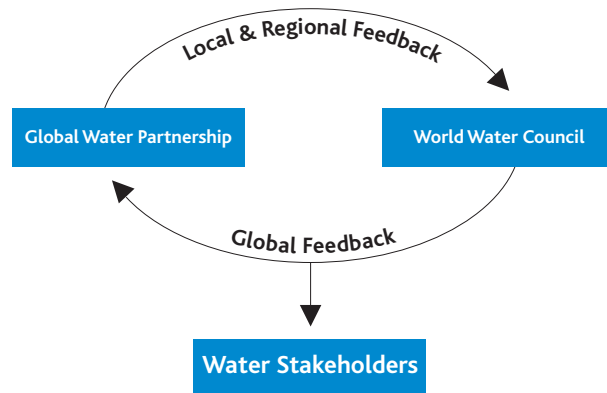


Figure 4

GWP Works through a Global Network of Regional Partners



- How are these players – the Ministries of Finance and different sectoral ministries – going to be brought in?
- How will the public climate of acceptance be created for the parts of the Vision where there is a large measure of agreement, let alone those for which there is still no agreement?

What is the way forward?

More and focused professional work is needed at the ministerial, senior political and policy-making levels to ensure that IWRM can and will be implemented.

Best practices can be collected by GWP in the many fields necessary to backstop the ongoing process.

The decision to adopt these processes, and to implement consultative mechanisms, requires political decision-making at the highest level. It is particularly in these areas that GWP feels it needs stronger partnership with WWC.

Conclusions

GWP is committed to working toward the best possible working relationship with WWC so as to improve integrated water management worldwide. WWC's Executive Director already sits on the GWP Steering Committee; and the GWP Executive Secretary sits on the Board of Governors of WWC. Thus, a preferential pathway for co-ordination already exists.

We only have to agree on the framework on which to build understanding and partnership. GWP is already setting out plans and rationales for meetings or consultations, and will share with WWC. A similar exercise from WWC is also encouraged.



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When you drink water, remember the spring Chinese proverb

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