

# Water Governance in the MENA Region: Critical Issues and the Way Forward

An International Conference in Cairo, Egypt, 23–27 June, 2007



On behalf of:



Federal Ministry  
for Economic Cooperation  
and Development

In cooperation with:



in ent

Capacity Building International  
Germany

# **Water Governance in the MENA Region: Critical Issues and the Way Forward**

**An International Conference in Cairo, Egypt  
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**Extended Report**

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# Preface

InWEnt – Capacity Building International has developed a comprehensive programme for the water sector in the MENA Region which has the objective to support regional cooperation, facilitate the development of management strategies for the water sector, establish a functional partners' network and promote awareness of policy-makers and public on water-related issues.

This programme includes activities in the region such as training events, conferences and seminars, and three inter-related International Partner Fora. The aim of these Fora has been to promote the analysis of the governance of water resources in the region by policy-makers and professionals also from the region, through the analysis of the current situation, the critical issues and the way forward, and the identification of the best way to proceed looking towards an improved future for the MENA Region to 2025.

During the First Forum organised in Sana'a in 2006, we assessed the current situation and context of water reform processes in the MENA Region. We came to the conclusion that whereas water resources are extremely scarce, the water challenges are particularly related to governance and management shortcomings. Thus, we have highlighted that human resources are the key to overcome the water scarcity problem and to promote reform processes.

Development and reform processes imply change. Having the globalisation in mind, change has become to be the only stable pattern. The ability to respond changing conditions will therefore decide whether we can successfully champion development in general and the development of the

water sector in particular. Thus, we have to understand and address the change, to respond to the challenges and to seize the chances. "Change – challenge – chance" we call it in the water community meanwhile the „Development CHA-CHA-CHA“.

Now allow me to expose this a bit further: Based on the conviction that change is a persistent paradigm, the critical questions are not any longer the „what“ questions but the „how“ ones: How to deal with changing conditions, how to take advantage of a continuous change? Today's organisations most often are not prepared to face change successfully: They are most bureaucratic, technical skills are dominating, decision-making is poor, and political strangulation is high. For sure, efficient management can help to improve performance, but only committed leadership can overcome these bottlenecks.

What do I mean with committed leadership? Its main features are competencies for governance, innovation and networking; they are reflected in a certain governance attitude and values that respect human rights, participation in policy-making, legal stability and socially appropriate economy. The enhancement of leaders is crucial for strategic leadership of change: Leaders innovate, inspire trust, have visions and they focus on people instead of focusing on systems and structures. I am most delighted that a lot of visionary thinkers of the MENA water sectors were present in the Second Forum in the MENA Region organized in Cairo. This fact enabled participants to jointly discuss and develop a common path to promote a sustainable development, and strengthen the performance of institutions by putting people in the centre of our acting.

InWEnt is ready to join this walk: Our specific contribution being strategic human resources development for leaders, managers and experts of the water sector. We promote competences to guide change processes and we do this by training, dialogue, networking and advisory services in the field of human resources development. We would like to do so in partnership with all interested parties in the MENA Region and, in this sense of partnership, to actively create international learning communities for our all benefit. I am most convinced that these regional conferences will be an important contribution.

I would like to thank the Arab Water Council for its continuous support and for having taken over the patronage of our programme. My sincere appreciations to H.E. Minister Abu-Zeid, the current President of the Arab Water Council and Dr. Wael Khairy, InWEnt's counterpart at the Arab Water Council. Thank you for all your support and for your friendship that makes our cooperation as fruitful and pleasant as it is.

And last but not least, sincere thanks to the colleagues of our capacity building partner, the Regional Centre for Training and Water Studies, Egypt, always supporting us in a most friendly and efficient manner.

Hans Pfeifer,  
Department Head,  
InWEnt

# Water Governance: a Critical Issue in the MENA Region

In the Middle East and North Africa, an area that often suffers from seasonal and annual aridity, some of the most important challenges that are to be faced during the 21st century is the rapid population growth, increasing urbanisation, and rising demand for food.

The demographic changes have put immense stresses on the water institutions of the region as water demands have increased exponentially. Consequently, many water institutions have effectively operated in a “crisis mode” for much of the second half of the 20th century. Their main objective has been to provide as much water to as many people as possible in the shortest possible time. This has inevitably meant that there has been a tendency to consider short-term solutions rather than pursuing a policy of nation-wide planning and management of the water resources which can ensure long-term efficient management. Under these conditions, the general performance of the water institutions has been consistently sub-optimal.

Regarding the agricultural sector, for most MENA countries, this sector is now contributing a low and declining percentage of the national GDP. Unfortunately, most water institutions have only recognised this fact in recent years and, as yet, few have done anything about it.

A worrying trend is that sometimes service and industrial sectors, which may account for 75% of the total GDP of these countries, often face water shortages, as the urban centres receive unreliable and interrupted water supplies. The impacts of these unre-

liable water supplies on the national economy and health are very significant, and yet very limited investigations have been undertaken by the water institutions to understand and appreciate the implications on the national economy and quality of life of the people.

The water sector incorporates activities from the small to the large scale, carried out by a range of different organisations and individuals. However, the growth of nation states in the MENA Region during the 20th century has meant that the water sector is controlled and managed by government organisations. In spite of this development, the range and performance of institutions within the water sector varies widely from one MENA country to another. In addition, coordination and interactions between different water-related institutions in anyone country leave much to be desired. Rivalries between different water institutions are common, especially as their responsibilities are not always clearly established. The net result is often inefficient delivery of water services.

Because of the above and other related factors, reform of the water sector institutions is urgently needed. Many MENA countries have already initiated a reform process, which requires clearly enunciated and implementable guidelines, improved institutional performance, good governance practices, and ensuring national, regional and international cooperation. Participation of all concerned stakeholders is another essential requirement for efficient water management. This includes capacity building at all levels, and empower-

ment of the public and private sectors as well as community organizations so that they all contribute to the overall improvement of the water sector.

It is a fact that water availability is extremely scarce in the MENA Region. These resources must be managed efficiently on a long-term basis and therefore water governance is essential for the Region. Since it is the governmental institutions the ones responsible for water management, they have to improve very significantly their governance and management practices. A major constraint for this has been the availability of trained and experienced personnel at all levels in the water sector. Accordingly, education, capacity building, training and organizational developments constitute an essential cornerstone to pursue good management and governance-related practices for the water sector in the MENA Region



# The InWEnt Capacity Building Programme for the Water Sector for the MENA Region

InWEnt-Capacity Building International, acting on behalf of the German Federal Ministry for Economic Cooperation and Development, has formulated a four-year Programme on Capacity Building in the Water Sector for the MENA Region, focusing in eight countries: Egypt, Morocco, Algeria, Tunisia, Jordan, Palestine, Syria and Yemen. The regional partner for this programme has been the Arab Water Council.

The main objectives of the overall programme include strengthening regional cooperation; facilitate the development of management strategies for the water sector in selected countries within the MENA Region in order to formulate and implement appropriate water sector reforms; establish a functional partner network; and promote awareness of policy-makers and the general public on water-related issues.

The outputs of the programme include, but are not necessarily limited to, improving the institutional performance, increasing the awareness of policy-makers of the priority issues involved, and support the development of a functional network on water issues within the Region.

The InWEnt approach is focused on the implementation of a series of activities such as dissemination of regionally-relevant and up-to-date professional knowledge and methodical competence; capacity building needs assessment and how these needs can be met in a cost-effective and timely manner; and periodic monitoring and evaluation of progress made. It also includes public relations, public awareness, and promotion of best practices in communities, and overall, regional cooperation through internal funds, third-party funds, and partner projects.

The present four-year programme consists of a number of training events and seminars as well as three interrelated International Fora on:

- I. [Water Governance in the MENA Region: The Current Situation](#). Sana'a, Yemen, 16-20 July 2006.
- II. [Water Governance in the MENA Region: Critical Issues and the Way Forward](#). Cairo, 23-27 June 2007; and
- III. [Water Future to 2025 for the MENA Region: How to Act and How to Proceed?](#) Marrakesh, Morocco, June 2008

# First International Forum in Sana'a, Yemen

The first international Forum on Water Governance in the MENA Region: The Current Situation, took place at Sana'a, Republic of Yemen, 16 – 20 July 2006 and was hosted by the Yemen Ministry of Water and Environment. It was supported by the Yemeni-German Technical Cooperation Water Sector Programme.

The objectives of this Forum were the following:

- carry out critical reviews of the water management situation in the MENA Region and analyses of trends and future outlooks;
- review experiences and identify key issues of water governance;
- assess and prioritize appropriate key elements for water governance;
- identify needs and future directions of capacity building strategies for improved water governance; and
- strengthen regional cooperation and networking processes.

The concept of governance appeared to be somewhat new for an appreciable number of the participants. Accordingly, the participants were brought to a common level of knowledge and understanding on the concept which proved to be essential and productive.

An array of governance issues was identified to be common throughout the MENA Region. The most important issues identified were:

- strong fragmentation of the sector;
- problems with institutional set-up, in particular unclear roles of the different actors as well as coordination problems;

- notable shortcomings in enforcement of laws and policies;
- shortage of funding and release of funds in a timely manner; ;
- need for increasing use of economic instruments and involvement of the private sector;
- crisis management rather than long-term management;
- need to shift the focus from physically increasing water supply to water demand management;
- scarcity and non-sustainable use of water, including growing water quality problems;
- contrasts between traditional and modern water management practices which has led to abandonment of traditional methods;
- needs for further decentralization;
- need to increase reuse and water conservation;
- technological shortcomings;
- insufficient data and information, particularly in terms of reliability, accessibility and sharing;
- public awareness; and
- capacity building requirements at all levels.

While the levels of relevance and importance of these identified factors vary throughout the region, they appear to be applicable to all the MENA countries.

It was recognised that whereas water resources are extremely scarce in the MENA Region, the water problems are dominantly related to governance and management shortcomings. Human resources deficiencies thus a key part of

the water scarcity problem. Therefore, education, capacity building, training and organisational development constitute a cornerstone for the development of the water sector in the MENA Region.

For the next Forum, the participants requested a focus on new policy concepts within the topics of water governance and capacity building and related case studies. Participants also committed, on behalf of their institutions, to provide support on capacity-building related activities.

In general, human resources deficiencies were identified as key parts of the water-related problems of the region. Therefore, education, capacity building, training and organizational development were identified as cornerstones for the optimal development of the water sector in the MENA Region. With its four-year programme, InWEnt plans to support national and regional institutions to develop their own strategies in terms of capacity building, including the necessary human, technical and financial assistance. In partnerships with the countries concerned, the next step will be how to make the best use of this development support.

# Second International Forum in Cairo, Egypt

The Second International Forum on Water Governance in the MENA Region: Critical Issues and the Way Forward, took place in Cairo, Egypt, 23 – 27 June 2007 and was hosted by the Egypt Ministry of Water Resources and Irrigation.

The objectives of this Forum were the following:

- familiarise the participants with the findings and outcomes of the Sana'a Forum;
- analyse in-depth the critical issues that were identified by the participants during the Sana'a Forum, including opportunities and constraints;
- identify appropriate approaches and concepts to overcome constraints and to build on opportunities; and
- strengthen regional co-operation and networking.

65 leading experts from the water sector, mainly from the Region, attended the exercise. Participants also included a few leading experts from outside the region who analysed latest development on different aspects of water governance from a global framework and perspective and presented relevant experiences for consideration for the MENA Region. A set of plenary lectures on relevant topics were included in the programme. Those are summarised in the left box.

## Critical Issues, Challenges and Capacity Building Needs for the MENA Region

H. E. Dr. Mahmoud Abu-Zeid

Minister of Water Resources and Irrigation, Egypt (presented by Dr. Sawfat Abdel Dayem)

## Summary of the Sana'a Forum

Dr. Wael Khairy, Arab Water Council, Egypt

## Water Management in the MENA Region to 2020 and Beyond

Dr. Olli Varis, Helsinki University of Technology, Finland

## Law Enforcement

Dr. Carl Bruch, Environmental Law Institute, Washington D.C., USA, and  
Rania Abdel Khaleq, Ministry of Water and Irrigation, Jordan

## Water Pricing and Cost Recovery

Dr. Christopher Clark, Dep. of Agricultural Economics,  
University of Tennessee, USA

## Public-Private Partnership

Dr. Sawfat Abdel Dayem, Professor Emeritus,  
Arab Water Council Head Office

## Water Quality Management

Dr. Tarek Tawfic, National Water Research Centre, Egypt, and Dr. Samir Bensaid, ONEP,  
Morocco

## Institutional Performance and Future Requirements

Abdelkarim Asa'd, Palestine, and Alexandra Pres, InWEnt, Germany

## Stakeholder Participation

Dr. Cecilia Tortajada, Third World Centre for Water Management, Mexico



A field visit was organized to the West Delta Irrigation Improvement Project, as an example of public-private partnership in financing, building and operating irrigation infrastructure.

### Box 1: West Delta Irrigation Improvement Project using Public Private Partnership Approach

The Government of Egypt (GOE) has supported commercial farmers in reclaiming desert lands since the late 1960s in order to compensate for the loss of agricultural land in the Delta, and to provide opportunities to generate new jobs, increase production and widen the development base. As part of its continuing endeavour to improve water use efficiency and sustainable development, the MWRI is considering an ambitious plan for improving irrigation water availability to the new lands in the West of the Nile Delta. This will include areas irrigated with surface water in the Nubaria area as well as areas currently depending entirely on groundwater for irrigation. The West Delta Water Conservation and Irrigation Rehabilitation Project is GOE's response to resolve the problem of excess groundwater exploitation and to foster continued agricultural growth, employment and investment in the area.

The Cairo Forum was chaired by Professor Asit K. Biswas, Third World Centre for Water Management, Mexico.

The Cairo Forum builds in essence to the outcomes of the Sana'a Forum. Four focal areas were chosen for detailed investigation and discussion in working groups. They were:

- Law and enforcement
- Institutional performance
- Economic issues
- Water quality management

A common cross-cutting theme throughout the Forum was "prerequisites and respective needs for capacity building". The participants also paid special attention to the opportunities to enhance the regional co-operation.

Legal and institutional aspects that were discussed in the workshops focused on constraints, challenges and opportunities, and were based on personal, sectoral and country experiences and viewpoints. Even though legal and institutional aspects are intertwined, they were viewed separately with the objective to have more time to analyse them as specifically or as generally as considered by the participants.

The method of the working groups consisted of four phases.

Phase	Task
One	Build common understanding and prioritize four most critical issues
Two	Find out the desired situation of each of the four issues + experiences in tackling: successes, failures as well as hampering + hindering factors of the aspects in water governance: <ul style="list-style-type: none"> <li>■ What are the success/failure stories for each of the four aspects?</li> <li>■ What are the reasons behind failure/success stories?</li> <li>■ How can we explain them?</li> <li>■ What are the lessons learnt from these examples?</li> </ul>
Three	Develop an exercise to formulate a vision to the year 2020: Where do you want to be with regard to financing, organizational and institutional set-up, restructuring of the sector, and human resources? What are the challenges on the way?
Four	Identify the development path to work towards the vision along the following line: <ul style="list-style-type: none"> <li>■ Identify 2-4 development paths to achieve the realistic vision</li> <li>■ Specify concrete steps to undertake</li> <li>■ Related to the identified development paths, what are the implications on and interrelations with the three other issues?</li> <li>■ How to enhance public awareness and political will?</li> </ul>

The main results of these four topics are described below. Before that, some overarching issues are summarised, which came up in the discussions of the working groups.

## The four focal areas

The four focal areas, law enforcement, institutional performance, economic issues and water quality management, are deeply interwoven, and one might even argue that change in any of these topics will affect the other ones, at least at a certain level. They are parts of the same machinery which includes numerous other entities too, as well as subordinated to the political system and the society as a whole with various informal institutions and cultural and traditional aspects.

In the MENA there is a change from top-down management to strategic policy development which includes the creation of long-term draft water planning documents that look 20 or 30 years into the future and which have a more integrative focus. National water strategies are either under preparation or have been published; IWRM has been identified as a core element within the strategies; and there are increasing consultations at the interministerial levels. This process is most evident in Egypt, Jordan, Morocco and Tunisia. Efforts are less advanced in other countries, but almost everywhere there is new attention to develop strategies that will accommodate water demand instruments. Concrete examples of institutional development include water users associations; improvement of water supply services in rural areas (e.g. Morocco); and use of water pricing as an instrument for water conservation. Challenges remain for planning and implementation of demand management instruments, water conservation, ecological demand, and groundwater management, for example (Rached and Brooks 2007).

In the MENA Region, laws in general are still not perceived as pillars of fundamental importance to achieve progressive changes in all sectors in the countries, and thus there are many examples of their inappropriate or unequal enforcement. To these contribute the fragmentation of a heavily centralized water sector, lack of coordination of public institutions, interdependency with other non-enforced laws, and inadequate political will.

For years, water institutions in the MENA have been said to be developing demand management instruments for arid/semi-arid conditions; involving more of the partners in water management in decision-making processes; and increasingly giving importance to social and environmental concerns. Even though there has been progress in adopting the previous considerations, their successful implementation, even is promising, is still far from complete. Looking back in history, their situation in general is not very different from the one that existed at the time of the preparation of the Action Plan of Mar del Plata in 1977 and that emerged from the Mar del Plata Inter-Governmental Conference on Water that year (Biswas, 1988 in Rached and Brooks, 2007). Had MENA countries taken the recommendations of this Inter-Governmental Conference, even partially into policy, the region would today be in a much more stable situation with respect to both human uses of water and ecological requirements (Rached and Brooks 2007).

Institutions in the region face financial and organizational difficulties which translate into more complex problems because the structure of the water sector itself is not amiable for the achievement of goals in the short-, medium-, or long-term. Water demand management strategies and action plans as well as management practices are not always appropriate, and adequate human and technical resources for their follow-up and implementation are missing. Traditionally, for example, water supply for

both drinking water in cities and for irrigation in rural areas, have been strongly subsidised by all MENA governments. This is the result why there have been so many efforts towards reform and the reason why donors have strongly supported measures to increase long-term financial viability of the sector.

The need for institutional changes in the water sector is recognized even though barriers for their implementation remain strong. For the most part, the institutional changes that are needed are known but their applications vary in the different countries. Decision-makers and technicians in the water field are normally aware of the general problems they face and of the general solutions that should be considered. Nevertheless, this awareness as well as their implications still need to be translated into actions, and convened to a much broader, and important, set of actors including politicians and citizenry to achieve tangible progress and results.

The above challenges and constraints are not so different from the ones faced by many other developing countries. Legal and institutional frameworks normally evolve with the history of the countries being adapted to their own social and economic needs. Therefore, in order to identify what practices and lessons learnt are unique or representative of the MENA Region compared to other countries, we have to look to the way on which they are viewed from within the different countries.

In terms of development of human resources, it was argued that financing is never enough to fund long-term capacity building programmes. This is the reason which national, regional and international partnerships have to be rediscovered as a fundamental tool for generation and dissemination of knowledge.

## Law and enforcement

Water legislation is in constant evolution in the MENA region. The situation is very much country-specific, yet some common trends can be observed. Issues such as water saving, adoption of economic instruments to water management, deregulation and recycling are among many issues that have not been considered appropriately in the legislative reforms of the MENA countries.

The Law and Enforcement working group examined how to improve the development and enforcement of water laws and regulations, since the other working groups were examining various aspects of implementation. In particular, the working group highlighted and then analyzed five aspects. These include:

- (1) laws and regulations that were not sufficient or “mature” (for example because they were out-of-date, had gaps and conflicts, or did not have all the implementing regulations; in many instances, weaknesses in the legal and regulatory structures only became apparent upon implementation and enforcement);
- (2) fragmentation of laws and institutions (within the water sector, with other sectors such as agriculture, and vertically because of decentralization) and the need for better coordination;
- (3) lack of human, technical, and financial capacity to develop, implement, comply with, and enforce water laws and regulations;
- (4) lack of awareness; and
- (5) other aspects of enforcement such as political will, conflict of interest, competing mandates, and corruption.

These issues form a subset of the critical governance issues defined at the Sana’a Forum. The logic and argumentation why the group ended up in these findings consisted of the following components:

- Awareness: lack of proper awareness of the laws and responsibilities among decision-makers, implementing agencies, local authorities, users, communities, judges and other actors.
- Enforcement: lack of enforcement from local authorities, judges, Ministry of Interior and the civil society.

These problems are said to be primarily due to the following factors:

- Interests (personal interests, corruption)
- Influential groups, persons
- Socio-economic aspects
- Institutional priorities

It is important to note that the participants of the group represented Syria, Yemen, Egypt, Morocco, and Jordan. And on the national level, each participant presented a case behind his or her choice of the above listed aspects. Those were further discussed in the Phase 2 analysis.

The starting points for the Phase 2 analysis of the law enforcement working group were on one hand that the maturity or the lack of maturity of the laws and regulations might affect the enforcement issues, and on the other hand that a routine impact analysis for all these issues is needed. Lack of human resources and capacity might affect the implementation of all the above issues through fragmentation, and lack awareness and enforcement.

The analysis revealed the following points as the major results of Phase 2 through several case studies and brainstorming:

- **Fragmentation of the law;** most of the participating countries suffered from the fragmentation of the law in a sense that there were many ministries, public institutes, and local authorities involved in water governance. This has hampered the efficiency of any implemented law and hence contributed to poor water governance. A cited case from Yemen indicated that they have managed this issue by giving the authority to only one ministry in order to facilitate a good water governance system. Despite the efforts, Yemen still suffers from problems in enforcement issues that need to be solved.
- **Capacity;** Capacity for the development of the law and contribution to its maturation was a common issue for the whole participating countries of the group. This case was evident for Syria and Jordan. Those countries revealed the existence of technical specialists that operated in their specialized technical fields. The downside of this pattern was that the qualitative factors of the water laws were not considered.
- **Awareness;** All of the participants revealed experience in regard to the awareness programmes. Two cases were selected for this aspect. The first was from Yemen whereby the political endorsement in regard to water consumption has contributed not only to modifications in the governance system but also to an increased level of awareness in the country. By the same token, Jordan has successfully integrated awareness programmes within the school programmes.
- **Enforcement and maturity of the law** were aspects that have mostly not been tackled yet. Morocco stressed that the

Aspects	Roadmap to 2020				Remarks
Fragmentation of the law	Possess the proper legal framework for integration and coordination of concerned the institutions and authorities				Coordination should happen at horizontal and vertical levels of all involved institutions. Donor agencies must be included.
Capacity	Knowledge of the existing laws and norms	Communication of professionals with the end users of laws in regard to the impact of implementation	Regular assessment of the capacity of the sector legislators in regard to their technical and legal abilities	Sustainable institutional mechanism for building capacities	Capacity building activities should be implemented at the following levels: community mobilization teams, managers and directors of water authorities, academia and scientific research, police of water issues, water court judges.
Enforcement	Political endorsement and success in fighting corruption	Consideration of already reported recommendations	Sufficiently serious penalty while considering an incentive system	Likelihood of persecution of violators	
Awareness	Assessment of overexploitation of groundwater and capabilities of administration staff to lead the governance programme	Strategic action planning to include but not limited to objectives and monitoring and evaluation plan	Build a culture to formulate, accept, and implement the law		Awareness programmes should target the nationals at all levels: political leaders, industrial stakeholders, common users, etc
Maturity of the law	Education and knowledge of water law in addition to technicalities as related to the quality, quantity, and availability of water	Update the law based on implementation experiences and lessons learnt	Consider social and cultural practices	Consider stakeholders participation	

law has been constantly revisited but still needs to include some modifications in regard to giving more power to the local authorities for the synthesis and implementation of the water governance laws, especially in crisis times (drought and unusual environmental conditions).

The main encouraging and hampering factors in this working group were:

#### Encourage

- Endorsement of political people
- Needs to unify planning
- Social pressure

#### Hampering

- Maturity of laws and regulations
- Resistance to implement due to lack of capacity
- Review does not address the issues for holistic perspective

### Additions

- Decentralization to facilitate the permit process
- Community must participate in all water issues and should not be neglected in revising the law
- Coordination between various stakeholders is essential

The vision exercise (Phase 3) commenced accordingly from the maturity issue as it emphasizes strongly education and knowledge on water quality and quantity issues as well as up-dated information on implemented experiences. Cultural and social practices as well as stakeholders such as private sector should be considered better than today.

The Phase 4 analysis concentrated on translating the road of Phase 3 into a possible action plan whereby actions/development path were identified. Moreover, the session also concentrated on the implications and needed support measures for the achievement of those actions. The results of the session are rotated about the same aspects and are summarized in the matrix below:

Aspects	Action	Measures and support	Assumptions
Fragmentation of the law	<p>Gap analysis</p> <p>Revision of institutional mandate</p> <p>Identification of roles and responsibilities</p> <p>Sharing and analysis of case studies and lessons learnt</p> <p>Development of analysis toolkits</p> <p>Open discussion forums to overcome identified gaps</p>	<p><b>In country measures</b></p> <p>Establishment of inter-institutional (ministry) committee for coordination</p> <p>Development of specific issue report that handles fragmentation</p> <p>Use of periodic (annual) reports for the ministries coordination and issues</p>	<p>This should happen on the national level and to be supported by regional initiatives for enhanced learning.</p>
Enforcement	<p>Build a system of accountability</p> <p>A permit system for water use that requires compliance measures</p> <p>Use press and media to uncover corruption</p>		<p>Can be attained only if partnerships are build with local authorities for water governance</p>
Awareness	<p>Development of tailor made awareness programs</p> <p>Long term plans to include target beneficiaries for the development of plans</p> <p>Consideration of effective communication tools adopt holistic strategic approach</p> <p>Prepare awareness programmes for different levels of society</p> <p>Awareness should not be limited to knowledge but influence behavioural change</p>	<p><b>In country measures</b></p> <p>An ongoing program for building capacity and awareness</p> <p>Clear/distinctive funding plan</p> <p>Public recognition through an award system</p> <p><b>Needed support</b></p> <p>Communication specialists</p> <p>Case studies</p>	
Maturity of the law	<p>Adopt participatory approaches to assess and overcome gaps</p> <p>Development of communication plan as the basis of intervention</p> <p>Implementation of workshops for the assessment and discussion of maturity of the law involving all stakeholders</p> <p>Make use of press to facilitate the process</p> <p>Build a network for the exchange of lessons learnt</p> <p>Build the capacity of national lawyers to change and modify the law</p> <p>Development of an analysis tool kit for law and water technical matters</p>	<p><b>Needed support</b></p> <p>Formation of teams from national and international experts</p> <p>Regional and institutional support</p> <p>Financial support</p>	

The participants examined how their specific activities were linked to the needs and activities articulated by other working groups. For example, activities to build capacity to develop, implement, and enforce water laws and regulations would also support capacity needs to develop and implement economic instruments, to improve institutional performance, and enhance water quality management.

While the participants noted their interest in these activities – and the potential for in-kind contributions – they also observed that some financial resources would be necessary for most of the activities.

## Institutional performance

Institutions provide the rules for the society. Their various functions range from legislative, juridical and administrative to many informal aspects such as culture, religion and ethnicity. Institutional set-up should be flexible, but provide social stability, and allow the country to solve the problems it is facing.

The working group identified the following four issues as the most critical ones with regard to institutional development in the MENA Region:

- Financial and organizational difficulties,
- lack of adequate human resources,
- knowledge and information dissemination and
- lack of water demand management.

The thesis of this working group was that if organizational set up and financial creation capabilities exist within the water sector and the roles are defined between operational and regulating mechanisms, then

Financing	Sector and Institutional setup restructuring	Human resources
Water sector institutions are financially balanced	Water sector framework	Human resources developed, attracted and retained by the sector
Efficient and have self-financing mechanisms with necessary amount of money available to meet the needs	Clear definition of policies, roles and responsibilities	Human resources considered as valuable assets rather than costs
Donors to fill the gaps according to the needs	Private sector successfully engaged	Change in philosophy
	Benchmarking mechanisms implemented	Best in class capacity-building programme
	With appropriate coordination mechanisms at all levels	
	Stakeholder involvement and implementation	
	Change management	

**Challenges:** Political will, mobilization of funds, activation of social community, awareness at all levels, bureaucracy, resistance within (change management), keep direction and momentum of the process, monitoring and adjustment when needed.

the focus should be on human resources development and leadership which in turn leads to technical and operational performance. This closes the circle and leads to sustainability of the water sector including access to public as well as private finance.

What are the successes and failures then related to the MENA Region's water institutions? The Phase 2 analysis produced the following entry of success and failure factors.

Restructuring has started in many countries and capacity building is needed at various levels. Overstaffed organizations constitute a remarkable bottleneck to change. Private sector is increasingly involved at different

levels and, even though practice differs a lot from country to country, it is generally believed that privatization yields better service. Cost recovery requirements adopted may result in higher tariffs, which evoke the question of the affordability of water services for poor people. In addition, efficient services at lower cost require allocation of sufficient finances. All this requires development of human resources on technical issues so that there are successful demand management practices of both water supply and sanitation services

Vision (Phase 3) of the working group consisted of the following components:

The details of this triple vision and its implications to the Phase 4 analysis are summarised below.

### a) Human Resources

The vision of the group is as followed:

“Human Resources are developed, attracted and retained by the sector, and considered valuable assets rather than cost.”

As a prerequisite there must be a change in philosophy and mentality at the manager’s level and people with the respective capacity for a certain job are employed – not those who have good connections.

To achieve the vision, there is a need to develop the necessary human resources (HR) policies on job description, recruitment, training, performance appraisal, carrier path, compensation scheme, transparency, accountability, etc. These policies have to be translated into by-laws, guidelines, instructions & procedures, rules and forms to facilitate their implementation. Before requesting the various persons to apply the HR policy, they have to be aware of, must understand and know, why and how the policy should be applied.

An important tool to create awareness and commitment is to involve the various levels already from the beginning (formulation of the various policies, the guidelines, forms, etc.). Managers need to understand that the new HR policy is nothing threatening but rather a strong incentive for the staff members, that transparency and accountability helps all and is not a sanctioning and control mechanism. Training has to be looked at as a right to further develop the capacities of a person to perform better and to advance in his/her professional carrier rather than a patronistic reward mechanism. In order to be able to apply the set policies, training and information sessions on how to apply guidelines, follow the set procedures

and in the use of forms will be necessary. There is a need to be open for feedback in order to improve the regulations or reorient the policies if need arises.

The group realised that there is a strong need for awareness building of the public to understand the new way. Explaining, giving information through brochures, flyers and video clips could be ways to enhance awareness. The staff members of the enterprises may find information on the intranet. Being aware and informed about policies and rules, procedures is important to follow up for one’s personal professional career and to know entry conditions and the necessary steps to be undertaken to achieve the next higher level.

### b) Financing

“The water sector institutions are financially balanced, efficient, and have self-financing mechanisms with the necessary amount of money available to meet the needs.”

The group stated that in case a country is not able to find the necessary means to meet the needs, donors should fill the gap.

The group took the aspect of “financial viability” to further elaborate its strategy. As a first step to this, the group felt that financing policies should be first developed (such on accounting, grant management and loan management, depreciation, cost calculation and tariffing, etc.). These policies have all to be in line with the international standards. From the set policies, the necessary rules, instructions, procedures and forms must be developed to make the policy applicable. To put the policy in practice and render all involved parties capable to apply it, awareness has to be created, information and training to be given to the various actors that are involved.

To develop the necessary policies to achieve this vision, there is the need to have qualified human resources, and a legal framework that serves as a basis. The group also felt that the financial basis has to be well known before developing the policies and guidelines.

The realization of the vision is strongly influenced by political will and support. To enhance this, the group elaborated some concrete ways to inform and involve decision makers as well as the general public:

- Elaborate reports that include real and up-to-date information on the water sector and inform the public, politicians, and scientists.
- Approach politicians/government representatives in Parliament (Lobbying)
- To have a programme approach, inform and involve other related sectors
- Ask politicians to participate as board member of a water body
- Link water to other important sectors of the country, such as to tourism, industry, health, etc.
- Inform the public about water shortages, the value of water, and thus give also information on the reasons for higher water prices.

Information can be given as brochures (that can be included in the water bill), as TV spots for different target groups (kids, women taking care of the household, religious people). The web sites of the water bodies can also contain this information.

### c) Sector and institutional restructuring

“Water Sector Framework developed, clear definition of policies, roles and responsibilities, private sector successfully engaged, and benchmarking mechanisms implemented with appropriate coordination mechanisms at all levels.”

This vision needs strong stakeholder participation and should be accompanied by a change management process.

The group distinguished between the need for restructuring the water sector as well as the restructuring of the various institutions and organizations that are acting as water bodies. Both have to follow a similar strategy to achieve the vision 2020.

## Economic issues

Encouragement of service providers and water users to develop water supply and manage consumption in an effective way is the main motivation of applying economic instruments such as charges, subsidies, taxes, quotas, ownership rights, water use rights and trading options.

Subsidies are the most widely used economic instruments in the water sector of the MENA Region. Whereas subsidies have brought various social benefits, the side effects as inefficient water use and depletion of the resource and the environment have become major concerns. The lowering of subsidies and adoption of other types of economic instruments may clarify responsibilities, increase water use efficiency and allow increased cost recovery for the operation and maintenance of household water supply, irrigation and other related infrastructure.

The bottlenecks are typically on the institutional and on political side; in regulation, in monitoring, in social and political acceptance, community involvement and so forth. Potential efficiency benefits of applying economic instruments are totally conditional to correct pricing, robust institutional control and analysis of negative redistributive effects for weak segments in society.

As the first phase, the Sana'a findings were revisited and related to the specific and highly diverse conditions of each individual country. The need for alternative financing mechanisms as well as the need for increasing economic instruments and involvement of the private sector were emphasised for all countries. Equally important issues are the shift from water supply to water demand and the recognition of the contrasts between traditional and modern water management practices. Water resources protection and conservation were also emphasised.

The working group identified the following four critical issues for further elaboration:

- A. Increase sustainability of supply water systems by increasing cost recovery.
- B. Develop alternative methods of financing capital investment in the water sector.
- C. Develop dynamic system for effectively allocating water, taking into account the priority of drinking water, the need to promote both an equitable and economically efficient distribution of water and concern for the natural environment.
- D. Promote the conservation of water through the adoption of water-saving technologies and practices and the increase use of non-conventional water resources.

While consensus was easily reached for B and C, it was difficult to reach consensus on the other two. The issues raised and debated were, first, that it needs to be specified in very concrete terms what costs should be included in cost recovery (valuing water or pricing water), and second, what allocation approach should be used. Several options are available: to use volumetric or non-volumetric rule and to maximise the economic net benefits of the allocated water. Should the tariffs be based on administrative decisions or should they be defined on the market. These matters

of course depend on the specific situation and are case specific. Therefore, the working group approached the phase two of the analysis analysing numerous case studies. The following table (see page 18) presents an outline of these case studies.



Critical issue(s)	Country	Story	Result	Encouraging and hindering factors
2, 4	Egypt	Provision of drinking water in remote, tourist areas by desalination of brackish groundwater through PPP	Positive	Private sector participation (+) Targeting high income sector (+)
4	Palestine	Plan to inject treated wastewater into groundwater to prevent seawater intrusion	Positive	Quality of wastewater treatment (-)
	Jordan	Southern Goha. Mixing of saline and freshwater (desalination?) to provide water for residential, industrial and agricultural sectors. BCA	Positive	
	Egypt	Conversion to modern irrigation technologies (laser lining farmland, lined mesqa, irrigation systems). WUAs responsible for all O&M costs of system from secondary canals to farms. WUAs set and collect charges from individual farmers. Government provided a year of training for WUA. WUAs have 10-15 members representing farmers on approximately 100 acres.	Positive	Decentralization to WUAs (+) Education and outreach to WUAs (+)
I	Morocco	Cost Recovery in the Residential Sector. For the residential water sector, Morocco applies an increasing block rate tariff that covers both O&M and capital costs for the production and distribution of freshwater.	Positive	
I, 2	Morocco	Cost Recovery for Wastewater Treatment. Multiservice concession that includes water supply, wastewater, and energy. Energy tariffs subsidize wastewater treatment.	Positive	User unwillingness to pay for wastewater treatment (-) "Cross-service" subsidization (+)
I	Morocco	Cost Recovery in the Agricultural Sector. The tariff structure varies by region of the country, volumetric charges in some regions, area charges in other regions. Collection rate is low because of technical and legal difficulties in ending water delivery to non-paying users. (Improve irrigation technology)	Negative	
I, 2, 3, 4	Tunisia	Marginal Cost Pricing. For residential water use, currently charging average cost of O&M. Plan to increase charge to reflect marginal cost of water provision by 2011. The excess revenues will be used for capital expansion, replacement and improvement.	Positive	Incremental (step-by-step) approach (+)
2, 4	Tunisia	Sale of Desalinated Water by Private Operators. Public water authority had exclusive right to sale drinking water. Law changed to allow private companies in tourist areas to sale desalinated water to other companies.	Positive	Legal flexibility (+)
I	Egypt	Cost Recovery in the Residential Sector. Volumetric charges (increasing block rate).		Metering (+) Illegal connections and unlicensed wells (-)
I	Palestine	Cost Recovery in the Residential Sector. Problem with increasing block rate tariff structure where multiple poor households are connected illegally to the same meter (to save on connection fees).	Negative	Multiple poor households on same meter (-)
I, 3	Yemen	Water User Associations. Many WUAs among irrigators in Yemen failed to work properly, apparently due to lack of support from the government and inadequate capacity building.	Negative	
4	Jordan	Rationing. Installation of flow-limiting devices to limit flow water to individual irrigators. Devices were often removed by irrigators. Installation of steel enclosures limited further interference with devices.	Positive	
4	Egypt	Continuous Irrigation in Egypt. Promotion of night irrigation increased utilization of water. Accomplished through subsidies and education.	Positive	
4	Egypt	Development of saline-tolerant crops.	Positive	

The main enhancing and hindering factors of the four main issues, based on the analysis of these case studies were:

#### Aspect 1. Water Allocation

- Private sector involvement, targeting high income sectors and building multipurpose projects
- Need to have Water Master Plan. Main hindering factor is lack of regulations

#### Aspect 2. Water Saving

- Knowledge of culture
- Wastewater reuse. Hindering factors include the potential of marketability of crops and inability to charge the value of water

#### Aspect 3. Cost recovery

- Step by step approach for applying the cost recovery and hindering factors include non enforcement of laws, and negotiation power of operators

#### Aspect 4. Alternative for capital investment

- Public-private partnership (PPP) needs visibility and introduction, new contracting system and generation of revenues
- Hindering factors include the need for regulation and inability to recover cost of profit

The vision exercise of the working group on economic issues resulted in the following concept. The challenges were not specified and they are highly country and situation specific.

The working group on economic issues came up to the following outcome from the Phase 3 and 4 analyses for the MENA Region's water sector by the year 2020:

##### a) Alternatives for capital investment:

The vision of this subtopic was:

Dynamic system for improved water allocation	Water saving and non-conventional water resources	Sustainability through cost recovery	Alternatives for capital investment
Water allocation based on benefit/cost analysis	Non-revenue water reduced	Pricing, transparency, efficient, effective, equity	Favourable environment for private sector participation
Water master plan	Encourage use of saving water technologies	Decreasing government subsidies	Public sector is a capable partner
Data to support planning and evaluation	Extra flood water into the cycle	Revenues within the system	Regulation
Responsiveness of law to changes	Saving water against pollution		Capacity building
Continue water sector reform	Increase the utilisation of non-conventional water resources		
	Waste water reuse and use of brackish water		

- A favourable environment has been created for private sector participation (that ensures profitability, credibility, political stability, responsive regulations, banking systems, and tax laws).
- Public sector is a capable partner able to negotiate partnership contract (strategy: through capacity building, supporting laws, and existence of an independent third party auditing).

The ways to reach this vision were:

- Private sector participation needs visibility and favourable environment for investment. The law reforms and institutional arrangements are needed for the introduction of new contracting system and generation of revenues.
- The public sector, as a capable partner needs capability building and enhancing negotiating attitudes.

- The neutral auditing (third party) is a must.

In some cases such as agricultures and rural water supply, the participation of the beneficiaries has already been encouraging.

##### b) Cost recovery:

The working group formulated the following vision related to cost recovery:

- An effective, efficient, transparent and equitable cost recovering pricing system is established with a minimum recovery of operation and maintenance as well as depreciation.
- In parallel to the above pricing system, all revenues are brought into the water supply and wastewater treatment systems (not to be diverted to the central treasury) for the

sustainability and additional expansion.

- Government subsidies to the systems have been phased out.

The main step to achieve this vision is to develop both the willingness and the ability to pay for water. The pricing must be effective, efficient and transparent. The water revenue must be injected in the system and the public subsidy should decrease smoothly.

- The accountability of the system is the major approach to reach the vision.
- The accounting and financial management must be improved mainly through capacity building.
- The step by step approach for applying the cost recovery can be the way forward; the main hindering factors include non enforcement of laws, and the low negotiating power of operators especially in agriculture.

### c) Water demand management through water saving and use of non conventional approaches

The vision on demand management is:

- Non-accounted for (non-revenue) water is decreased
- Increased utilization of all non-conventional resources (through reuse of reclaimed water, desalination, water harvesting, and brackish)
- Increased use of water saving technologies and practices in agriculture, industry, and domestic uses (through economic and non economic incentives, flood water to recharge groundwater)
- Water is protected from pollution

The key is the promotion of the widespread use of non-conventional resources and water saving technology practices. The prerequisites are knowledge of the culture of the target public and the success in management of behaviours change.

Promote water saving practices should equally be promoted through incentives and raising awareness. Wastewater treatment should be developed and wastewater reuse promoted. The main hindering factors include the lack of potential of marketability of crops and inability to charge the value of water.

### d) Dynamic System is established for improved water allocation

- The water sector reform is continued (or started in not already)
- Data is continuously updated to support long term planning and monitoring
- Laws responsive to changing contexts and environments

Developing a dynamic system to improve water allocation that takes into account technical effectiveness, economic efficiency, environmental implications and equity; always giving priority of water allocation for drinking purposes.

The important step is to have a Water Master Plan that shows through economical analysis water resources allocation. Private sector (industries, tourism) can be involved to build extensive water facilities for its own needs and furthermore can supply the neighbouring consumers. The institutional reforms and law enforcement (water law) are the sine-qua-none conditions to achieve that vision.

After all, water pricing is a commonly-recommended goal to achieve the objectives of water demand management and cost recovery for the water sector. However, there are a number of obstacles to implementing water pricing, including: conflicts with other goals and objectives, misperceptions about water pricing, difficulties in determining and setting the price and in achieving high-quality service provision and inadequate monitoring and enforcement. A review of the literature on water pricing provides some strategies for overco-

ming these obstacles, which were compiled into the following list of general guidelines for agencies attempting to implement a water pricing policy:

- Be prepared and prepare others for change,
- Be inclusive by involving stakeholders,
- Be clear and easily understood,
- Be open and accountable,
- Be forward-looking,
- Create the necessary legal environment,
- Consider the incentives to be created by the policy,
- Consider cultural and socioeconomic differences, and
- Be flexible and adaptive.

## Water quality management

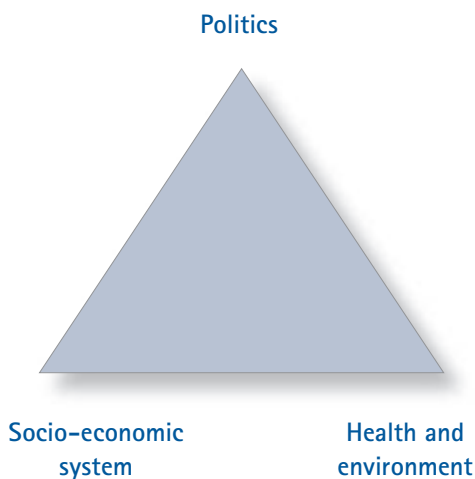
At present, one of the unfortunate slogans in emerging economies is “first pollute, then clean”. The argumentation goes in the following way: “...now there is no money to take care of environmental pollution. We have to put all the efforts to build up the economy. Once the money is there, the time is right for environmental investments”.

Water quality deterioration of surface and groundwater resources is an increasing challenge in the MENA Region. The major reasons to this are over-extraction of water, accumulation of salts, lack of appropriate sewage disposal systems, as well as dumping of industrial waste and hydrocarbon leakages.

Given the physical scarcity of water resources in the MENA Region, the countries cannot any longer afford the degradation of

water resources in terms of deterioration of water quality and ecosystems. Water quality problems cause massive economical and social losses and conflicts, and the trend should be reversed towards improving water quality conditions.

Water quality problems cannot be isolated from socio-economy which in turn is preconditioned by political system and political regime. This was illustrated by the triangle: socio-economy – politics – environment and health where links between all these three components are very strong.



Thereby, water quality management is preconditioned by many aspects of the three other working groups, i.e. law, economics and institutional performance. If the visions of the other working groups would become reality, then water quality management would become radically more straightforward than what it is today.

Critical issues (under prevailing conditions, although present system is very much preconditioned by political realities and religious issues) are the following ones:

The working group elaborated first the available and potential methods, technologies and alternatives for water management in general and water in particular. This was followed by a scrutiny on the role of socioeconomics, cultural and religious condi-

tions and values as it relates to policy and development. Education and awareness at all levels was a crosscutter during the working process.

The four focal areas within the domain of water quality management were

- Data monitoring, collection, analysis and dissemination. Monitoring networks and data availability need improvement. In regard to laboratories and other facilities, quality control, quality assurance and verification are critical issues in improving their performance. A protocol for publishing water quality data and information is necessary in the future.
- Making the case for water quality as a national priority in the era of climate change. Here links to law enforcement and to regulations is very direct. Also the improvement of the Environmental Impact Assessment practice has many links to water quality.
- Infrastructures – software/hardware. The working group used the concept of infrastructure in a very broad sense since no clear-cut distinction should here be made between the performance of organizations and equipments. Human resources development, including various types of training activities, cannot be overemphasised.
- Waste management and technologies and education. After all, the success in water quality management relies on minimization of release of harmful substances to waters, both surface and ground waters. Liquid and solid waste management practices, including treatment, as well as ecosystem management including agroecosystems, in order to control and minimise non-point source pollution all are key areas in water quality management. Public awareness and education are crucial, besides technical and regulatory solutions.

The argumentation that led to pointing out these topics as focal areas consisted of the following issues. First, data and search for appropriate alternatives for waste management and minimization of pollution were the overarching issues. Second, the recognition of the role of government and education as an integrated block in the construction and enforcement of water and environmental regulations necessitate the inclusion of infrastructures and education on all levels to make the case for water quality as a national priority.

The analysis went on by analysing numerous case histories and identifying successes and failures, and identifying reasons for those.

GENERAL	Encouraging	Hampering
Law enforcement	Law revised	Weak enforcement
Agricultural wastewater	Polluter pays	Less rational use
Pollution at source (agriculture)		Pesticides and groundwater, hazardous to health
Organization	Framework exists	Poor enforcement and inspection
Equipment	Exists	Underdesigned Need maintenance Not enough
Human resources	Labour force exists	Unskilled labour
Domestic tertiary treatment	Vegetables free of bacteria Co-operation exists	Not generalized Insufficient
Wastewater treatment in agricultural areas with aquatic plants	Use of low-cost technology Service to villages will be easier	
Environmental upgrading project	Consumption decreased Pollution decreased Better organization and management	Awareness problems exist

DATA	Encouraging	Hampering
Availability	Exists	Not accessible
Monitoring network	Efforts are done partially in the right direction	Not enough for future requirements
Quality control and quality assurance	Exists only in some projects	Needs a lot of effort to be assured
Protocol	Exists	Not followed

The group consisted of participants from several countries and they were using their own local conditions in their case stories in the justification of the issues selected.

For example the issues from Syria were the Orontes basin and the need for a management plan, in Egypt river pollution and enforcement of law, in Morocco, the trade

off between the polluter pays principle and the treatment at the source, in Tunisia environmental upgrading for all sectors and clean up of household sewage.



## Concluding remarks

The theme of the Second International Forum on Water Governance in the MENA Region was Critical Issues and the Way Forward. The Forum was organised in Cairo, Egypt in 23-27 June 2007, with the overarching question to be answered by the Forum participants: Critical Issues and the Way Forward.

The Forum was second in the sequence of three consecutive Forums that are being organised by InWent Capacity Building International, Germany, and the Arab Water Council. The first Forum was organized in Sana'a, Yemen in July 2006 with the theme Water Governance in the MENA Region: The Current Situation. The third Forum will be organized in Marrakesh, in June 2008, and its theme will be "How to Get There?"

The time perspective of the Cairo Forum was to vision the way forward for the water sector development in the MENA countries until the year 2020. The starting point was the set of critical issues

that were identified at the Sana'a Forum in 2006. Those critical issues are listed in the summary chapter of the Forum, earlier in this report.

It is clear from the outset, that the water sector challenges are notable and growing. But it is not equally generally recognised that these challenges are primarily related to governance problems and not solely to physical scarcity. Equally important is to understand that factors inside as well as outside the water sector are important, and that the water sector does not develop in a vacuum, but instead it is an intrinsic and important part of a more general development process.

All in all, water related challenges are notable and rapidly growing in the MENA Region countries. It has become obvious that a deep-going water sector reform is necessary. Institutions and organizations need profound reform. Organizations and their staff must function in an efficient, adaptive and coordinated manner.

All this can be done provided there is political will and commitment from all actors. This will not be a trivial task but, instead will be necessary, in order to achieve the visions developed by the four working groups of the Cairo Forum. It was striking to see how deeply interlinked the four visions were, none of them being isolated from each other.

They are components of the same game, they must evolve hand in hand, and as unfortunate as it is, in games such as this one, the worst performer typically defines the success or the lack of success of the totality.

Capacity building and human resources development (including organizational development) is one of the most important building blocks, if not the most important one, in developing the water sector governance in MENA countries. Only then will be met the vast challenges that the water sector in MENA countries are exposed to and will increasingly be exposed to.

Political will is necessary for performing the reforms needed to achieve the visions produced by the working groups and creating public awareness may help in enhancing political will. Even though there was no working group on public participation, this topic was mentioned very much by all groups as a pre-requisite for economic, legal and institutional issues, as well as water quality related matters, to be able to be implemented in the extent they are necessary.

It was discussed that there is increasing stakeholder participation in the MENA Region mainly at the level of non-central governments, private sector and agricultural users. In general, the participation of societal actors such as organised civil society groups, including NGOs, is still in its very early stages. There were very concrete examples of how processes of stakeholder participation in Morocco and Yemen have rendered, and are rendering, very positive results in spite of their complexity.

The conclusions in the four main priority areas can be summarised as follows:

**Law and enforcement.** The working group on law and implementation characterized the challenges, drawing upon various national experiences, as well as some ways that they have been able to be developed with varying degrees of success the key aspects.

Following a description of a general vision for improving water laws and enforcement in the region, the working group elaborated a series of concrete activities that would help to address the various aspects. The activities include developing a network to share experiences, assessing the current status and appropriateness of the legal systems in the region, including their implementation, legislative and regulatory drafters, and developing a water law curriculum that could be institutionalized in existing capacity building institutions (including uni-

versities, judicial academies, and specialized water training centres). Other proposed activities, such as case studies on addressing fragmentation and coordination, could be stand-alone activities or they could be integrated into the other activities (e.g., the water law and regulation toolkit).

Most of these activities could be undertaken at the regional level to assist national initiatives. Some activities, such as periodic assessments of needs and effectiveness, would be primarily, if not exclusively, at the national level.

**Institutional performance.** The water sector reform in the MENA countries leans very much on the level of success in reforming and developing proper institutional arrangements. The need to develop and reform institutions is vast, and exchange of regional experience and visions is crucial and vital.

There is a need to first define the necessary policies to set the frame. These policies have to be based on the legal water framework. Specific policies that were mentioned: PSP (Public Sector Participation, specifically Public Private Partnership), benchmarking policies, water using bodies, coordination mechanisms, representation and role of each body, specifically of a regulatory body. By-laws, instructions and procedures have to be derived from the set policies, and the organizational landscape has to be structured to facilitate the implementation.

The group expects high internal as well as external resistances (see results from Phase 2). To face specifically internal resistances, the group advises that all parties should be involved in the various stages. The change must be stepwise and in a transparent manner and has to go parallel with the development of human resources.

To enhance political will and avoid cheating by any party involved, there should be a neutral body which has no interest and

who facilitates the process of restructuring and change. A common platform for exchange of information was suggested to ensure dissemination and transparency.

**Economic issues.** The working group strongly endorsed the widening application of economic instruments in the water sector. Main points raised in the working group discussion were:

- Conflicts between charging a price for water and religious and social values.
- Elimination of agricultural subsidies that have the effect of promoting water consumption.
- Difficulties in recovering costs for wastewater treatment from residential users.

An important consensus was reached around the following most critical aspects:

- Developing a dynamic system for improved water allocation.
- Promoting the use of non-conventional resources and water saving technology of practices.
- Increasing the sustainability of water supply systems by increasing cost recovery.
- Developing alternatives to capital investment (other than public investment).

That consensus was a must in order to develop a common platform among the participants that will help greatly in developing a common realistic vision toward 2020.

**Water quality management.** The water quality working group pointed out that the future working environment of the water quality managers is strongly preconditioned by the achievement of the visions of the three other working groups. The following is a list of issues and aspects that were considered the main entry points for addressing water quality challenges as identified



by the working group:

- The first main point was about data. This issue includes monitoring, collection, analysis and dissemination.
- The second issue was water quality as a national priority which was changed during the discussion to a strategy to alleviate (minimize) the adverse effects of pollution
- The third issue was infrastructure including organizational reform, availability of equipment, training needed, human resources development, etc.
- The fourth issue was waste management technology as well as public awareness and education as an integrated part of the establishment and enforcement of environmental regulations.

The MENA water sector governance is thus under a many-dimensional pressure of paradigm and focal change. Under these conditions, capacity building has the potential to help policy-makers inside and outside the governments to understand how best to find a balance between public good and special interests; to assess long and short term impacts of water policies, programmes and activities; and then to get the best out of the strengths of players in water management processes.

The process that started in Sana'a with an analysis of the current situation on water governance in the MENA Region, and continued in Cairo with the discussions of the critical issues and the way forward, will reach its conclusion in Marrakesh with the formulation of most suitable and implementable visions for the region.

Governance of the water sector must take into consideration the continual changes, both from within the water sector and those outside the sector which affect the water sector and on which water professionals have limited control. The success of any long-term vision on water governance for the MENA Region will thus require proper understanding of the immense challenges and changes that are likely to be faced in the coming years and also defining the ways in which these can be best understood and addressed for the overall socio-economic benefit of the region. This will not be an easy task, but one that must be undertaken.



## Arab Water Council

The Arab Water Council (AWC) was formally launched on 14 April 2004 in Cairo, Egypt following many years of planning, discussions, and consultations. The council is a civil society, not-for-profit, regional organisation dedicated to water issues in the Arab States. An interim General Secretariat has been established in Cairo.

The mission of the AWC is the following:

- promote better understanding and management of the water resources in the Arab States in a multi-disciplinary, non-political, professional and scientific manner; and
- disseminate knowledge, enhance sharing of experience and information for the rational and comprehensive water resources development of the region for the benefits of its inhabitants.

The Founding Assembly elected Dr Mahmoud Abu-Zeid as the President of the Council and requested him to chair the Founding Committee, which has the tasks of, inter alia, completing the organizational structure of the AWC, formalising its constitution, continuing the broadening of the membership, and preparation to hold the meeting of the First General Assembly. The Founding Assembly met in Cairo and included some 400 experts, scientists, professionals and individuals with interest in water issues from seventeen countries of the Arab States.



# InWEnt – Internationale Weiterbildung und Entwicklung gGmbH

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## Imprint

International Conference on  
Water Governance in the Mena Region:  
Critical Issues and the Way Forward  
held from June 23-27, 2007  
in Cairo, Egypt

Extended Report

### Published by:

**InWent - Internationale Weiterbildung und Entwicklung  
Capacity Building International, Germany**  
Division Rural Development, Food and  
Consumer Protection  
Wielinger Straße 52  
82340 Feldafing, Germany

Germany  
November 2007

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5.01-0011-2007 - November 2007

