

## Conference Reports

### **Workshop on Reassessment of the Sustainability Paradigm for the Water Sector, 7–8 August 2002, Bibliotheca Alexandrina**

The workshop on Reassessment of the Sustainability Paradigm for the Water Sector was organized at the Bibliotheca Alexandrina, Alexandria, Egypt, by the Third World Centre for Water Management and Bibliotheca Alexandrina, with the support of the Sasakawa Peace Foundation. Participation in this workshop was by invitation only, and included international experts from the areas of water, environment and economics and very senior decision makers from the five continents.

The workshop was organized due to the fact that many people have expressed their dissatisfaction with the present paradigm of sustainable development, primarily because it has not produced enough tangible results in nearly four decades in terms of economic, social or environmental development. It was thus considered necessary to reassess the concept of sustainable development in terms of its applicability in the water sector.

It was noted during the workshop that the issue of development is, by definition, not limited exclusively to economic growth. It must expand to the scope of freedom, as well as political and social equity. Economic growth is only a means to an end, and not an end in itself. It is a necessary condition, but not sufficient for accelerated poverty reduction. Poverty being a multidimensional concept, the aim of development should be good governance based on participation, education, empowerment of minorities, a cleaner environment and even urgency to emphasize what would be the economic, social and environmental costs of the lack of necessary action.

One proposal made during the workshop was 'sustainability as an opportunity', in which a balance is established among economic (man-made), natural, human and social capitals. It is not realistic to think that the same amount and composition of natural capital can be left to the next generations compared with the present one. Hence, instead of trying to reach a non-achievable objective, that of *de facto* conservation of the natural resources, one alternative could be to achieve a more feasible goal which considers sustainable development as an opportunity, or economically speaking, an expansion of the capital stock, where the next generations can find the same or more opportunities than the present one in the form of stocks of capital (man-made, natural, human and social capitals), and where one form of capital partially complements or substitutes the other. The needs can be changed for opportunities since the aggregate amount of the four capitals increases with time, or at least it does not decrease. This way, the social and environmental aspects could be considered within the context of the overall population growth.

An important constraint for the applicability of this idea is the short-term vision of politicians, or businesses. For this proposal to be implementable, it

would have to be applied over the long term, which would go beyond the terms of the politicians in office, and their possibilities for election, as well as the obsession of increased quarterly profits of businesses. Institutional barriers, the roles of the public sector in policy development and the roles of the private sector as co-responsible for the development of the countries were also noted. Pressures from the general public could have serious potential impacts for developing alternatives to make the governments react both in the short and in the long terms. Stakeholders have to be understood through their interests, arguments and alternatives, and solutions proposed.

The historical development of the concept of sustainable development from 1962 until the present was reviewed. Non-successful 'experiments' with water management in developing countries and questionable leadership were some of the specific examples that were considered, and which indicated a lack of commitment from several administrations, many of which have given strong lip service to sustainable development, but do not seem to be in any hurry in implementing it. International organizations are also responsible for this slow motion, since, in many cases, they pretend not to notice the lack of actions in many developed and developing countries. Regarding the non-governmental organizations, their performances, attitudes and impacts need more serious and objective scrutiny than has been given so far.

The issue of water policy in relation to paradigms, ideologies and institutions was extensively discussed. Sustainable development is based on ethical principles, precautionary principles and democracy. However, if governments do not see the rationale of the paradigm of sustainable development, either the paradigm has to be modified, or the way the governments work has to be changed. The ambiguity of the concept of sustainable development was considered by some participants as an excuse for administrators not to act in concrete terms.

There are arguments in favour and against the heterogeneity of paradigms. It was considered that monism and paradigm shift can be replaced by pluralism and paradigm co-existence, since plurality of paradigms could result in richer arguments and, hopefully, plurality of strategies and actions. The fact, however, remains as to how to understand and develop a political process in which different actors can find mutual interests in the long-term future under one, or more than one, paradigm. It is well known that the agendas of businesses, governments and communities are sometimes different and even could be conflicting, and still march together to achieving a common goal. Very seldom do all these agendas coincide, which would have been the ideal case. Accordingly, an important issue is how best to harmonize the conflicting views, interests and agendas of different groups.

The issue of who has the ownership of the paradigm was also discussed. If the owners are the intellectuals at the universities, what type of incentives can be offered in order to convince the politicians of the importance and relevance of their actions? How can we develop a global agenda where goals are not diffused, and where the agendas of the individual countries are based on mutual self-interests? Are governmental think tanks necessary to bridge knowledge and power? In terms of democracy, while socially sensible decision making (alias democracy) is an important component of decision making, it does not necessarily guarantee sustainability.

Science and technology were recognized as issues of utmost importance for

the development of the countries and their people. It was noted that science needs to negotiate a new contract with the society, and that economic, social and environmental impacts of technology changes have to be objectively and realistically assessed in order to predict their applicability over the long term.

Finally, in order to develop a theoretical framework for development, it is necessary first to assess why the concept of sustainable development became so popular so fast. It is essential to consider if a single concept can be applicable for different values, and if so, should paradigm shift evolve into paradigm co-existence? Furthermore, how can policies be developed in a world of rapid changes and transformation, where present and future needs are different, and where the starting points still seem to be to improve the quality of life of the populations? Finally, the concept of sustainable development needs political and analytical reassessment, since it seems that there may have been an intentional 'delusion' in the theoretical framework which was supposed to guide the world.

Sustainable development needs to be reassessed, especially in terms of its implementation. Hence, even though the idea that environmental considerations are of equal merit with the social and economic issues should not be abandoned, the concept could be considered for replacement. The nebulous term 'sustainable development' can perhaps be replaced with something more measurable (long-term considerations?), where the market forces, governments and civil society, which define the evolution of this concept, can clearly be represented. Rather than trying to fit a single framework to different values, it might be more appropriate to develop paradigm co-existence. Over the last four decades, the lack of application of the sustainable development concept in the real world has become apparent, due to the lack of measurable indicators, and the necessity of taking practical action has dramatically increased.

Following the tradition of Socratic 'rat catching' of those who professed to know more than they actually did, it may be necessary for those who are not satisfied with the present paradigm situation to consider other realistic and implementable alternatives.

The papers specially commissioned for this work will be published as a book by Oxford University Press, so that the ideas generated and discussed at the workshop can be extensively discussed and debated.

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**Public–Private Partnership in the Water Sector: The Case of the Middle East and North Africa Region, Cairo, Egypt, 1–3 November 2002**

The water availability conditions of the Middle East and North Africa (MENA) region are already critical, both in terms of quantity and quality. The region has one of the highest population growth rates in the world. In addition, rapid urbanization, increasing human activities, and inadequate water quality management practices are making an already serious water situation increasingly worse. Continuation of the existing business-as-usual practices and policies can only cause water conditions to deteriorate further. Thus, new and innovative approaches are necessary to improve water management practices of the future, if existing water resources are to be used rationally and efficiently over a long-term basis.

One potential solution could be the increasing involvement of the private sector to provide water services for domestic, industrial and agricultural uses and to generate hydroelectric power. Conceptually, the private sector can play important roles in:

- improving substantially the existing technical and financial management of the urban water and wastewater sector; and
- attracting new investment for the water sector as a whole, which the public sector is no longer in a position to supply fully in a timely manner.

Currently, on a global basis, less than 6% of urban dwellers receive water and wastewater services from the private sector. The percentage is likely to be much lower in the MENA region. It is estimated that during the past ten years private investment in the water sector in developing countries has increased from virtually nothing to about a cumulative US\$30 billion. On the basis of current trends, this figure is likely to expand significantly in coming years.

It should be noted that while the overall record of involvement of the private sector in the MENA region has been good, there have been some failures as well. For example, in a country such as Morocco, experiences thus far with the private-sector involvement in Casablanca have been quite positive. Based on current results, it is becoming increasingly evident that neither the public sector nor the private sector alone can solve all the water problems of the developing world for urban, industrial, agricultural and hydropower-related uses promptly and cost-effectively. Both sectors have their strengths and weaknesses, which may vary from one location to another, and also over time because of changing conditions. Thus, the optimal solution of the future will most probably be in terms of public–private partnerships, where both sectors can work together within a properly defined framework, within which they can play their roles efficiently, transparently, fairly and responsibly.

In order to assess the current status of public–private partnerships in the MENA region, and also to find out the current views and perceptions of the public sector, private sector, academics and NGOs on this overall subject, *InWEnt* (Capacity Building International) of the German Ministry for Economic Cooperation and Development, and the Third World Centre for Water Management, Mexico, with the support of the Ministry of Water Resources and Irrigation of Egypt, organized a workshop on Public–Private Partnership in the Water Sector for the Middle East and North African countries, Cairo, 1–3 November 2002.

The main objective of this workshop was how best to promote efficient and sustainable water management in the Middle East and the North African countries through public-private partnership on all issues associated with water development and management processes and practices. In addition, the Workshop was expected to synthesize current knowledge and experiences in this area, which could then be used to build capacity and strengthen the human resources development of the water professionals of the region. In order to assess the present situation, case studies were specifically commissioned from leading experts from the public and the private sectors and from academia from countries such as Egypt, Jordan, Morocco, Saudi Arabia and Yemen. The foci of the case studies ranged from water supply and sanitation to the financing of infrastructures, groundwater management, cost recovery for water supply and irrigation services, institutional reforms to allow private-sector participation, commercialization, capital investment programmes and other related issues.

The importance of all types of appropriate partnerships between the public and private sectors was recognized, as well as their complementary roles. For example, in a partnership between the private and public sectors for water supply and sanitation services, the public sector could be seen as responsible for the planning and regulation of a private-sector entity, whose main roles could be in terms of the operation and management of services. It was agreed that the private sector should provide water of appropriate quantity and quality, and wastewater services not only to the urban population who can pay for them, but also to the poor at affordable prices.

Based on the evidence available so far from the MENA region, it could be said in general that the private sector could provide new investment capitals, good managerial, technical and financial expertise in operating and maintaining systems, rapid adoption of new technologies, reduction in public subsidies, improvements in water supply, sanitation and storm-water disposal practices, development of functional information systems, improvement in institution capacities and better interaction with customers. The alternatives to private-sector participation in infrastructures could range from government retaining full responsibility for their operation, maintenance, capital investment, financing and commercial risks, to the private sector assuming a large part of these responsibilities. The private sector is also expected to make consumers more aware of the value of water and wastewater collection, treatment and disposal.

Based on the case studies prepared for the Workshop, when private companies take over the operation of a public utility, the main problems they face include a high proportion of unaccounted for water (often over 40%), low water rates, low collection of water rates, poor management of assets, over-staffed institutions with low efficiency and morale, and inadequate availability of investment capital.

Among the indicators that could be used to measure the efficiencies of the private-sector companies are the number of users served, any decrease in the quantity of unaccounted for water, number of hours per day during which water is available, a proper billing system for all consumers, any increase in collection of water rates, and new investments in the system.

Water pricing was considered to be a sensitive issue. A good pricing structure is essential so that people who can afford to pay for water pay a fair price and the poor have adequate access to the service, provided at affordable rates. Concurrently, the entire process should be profitable for the companies so that

they receive an adequate return on their investments. However, because of political, social and economic implications, development of a proper and fair water tariff acceptable to all parties, often becomes a somewhat complicated task.

### *National Experiences*

It was noted that the public sectors in the MENA region are at a significant disadvantage when negotiating concessions with international private-sector companies. The public sector generally has limited experience in the area of negotiations since it is a comparatively new development. In contrast, the major international private-sector companies have considerable expertise, knowledge and skills (technical and legal) in such negotiations, since they have conducted similar negotiations many times earlier in different parts of the world. Thus, there is often a mismatch of negotiating knowledge and skills between public- and private-sector companies, which does not generally result in a level playing field. Since private-sector investments are expected to increase significantly in the future, it is essential that an adequate number of public-sector negotiators be trained in each MENA country so that there can be fair negotiations between the two groups, resulting in win-win situations for all concerned.

In the case of Saudi Arabia, partnerships between the private and public sectors are very important for the future of the country. It has been estimated that the investments needed for water development up to the year 2022 are 423 billion Saudi Rials (181 billion for desalination; 133 billion for collection and treatment of wastewater; 68 billion for groundwater management; and 41 billion for distribution networks). Hence, the participation of the private sector is essential to bring in new investment, improve the operating and management efficiencies of water systems and introduce new technologies.

In Morocco, until now four large cities (Casablanca, Rabat, Tangier and Tetouan) have been under the management of private-sector companies for the provision of water supply, sanitation and electricity. Traditionally, water supply services in the urban sector of Morocco have been good in terms of quantity and quality because of the excellent performance of the National Office for Potable Water (ONEP). However, an important issue is that concomitant progress has not been made in the country in the areas of sanitation and wastewater, where ONEP had no mandate until November 2002. Recourse to concessions was dictated by a double objective: first to ensure the means of financing the investment programmes necessary for the levelling and development of the three fields of activity (water, electricity and sanitation) and then to guarantee the transfer of technology and the know-how and expertise to improve the management and quality of services.

In Casablanca, LYDEC has been awarded a 30-year delegated management contract with no transfer of assets. LYDEC consists of Suez Lyonnaise des Eaux (35%), ELYO (24%), EDF International (18%), ENDESA International (18%), and AGBAR (5%). There was no competitive bidding for this contract because it was considered that Lyonnaise des Eaux had the necessary expertise to provide the best quality service. The contract is expected to be reviewed every 5 years and may be modified as considered appropriate.

Casablanca has been considered a successful case of private-sector involvement by users, primarily because of improvements in the service, which includes a 24-hour service, formulation of accurate billing procedures, better sanitation

and improved attention to consumers. This perception of improved services prevails, in spite of the fact that the water prices had to be increased three times during the first year. During the past five years, the number of connections for water supply has increased by 27.5%, and 20.2% in terms of electricity. The investments made for sanitation over the past three years have amounted to 7 million Euros. In February 2001, Amendis won a 25-year concession for the cities of Tangier and Tetouan. Amendis is 51%-owned by Vivendi Environment, 17% by Hydroquebec International, 16% by ONA and the balance by SOMED.

According to the World Bank, in January 2002, the Government of Morocco initiated the first ever public-private partnership project in the irrigation sector in the country. It consists of two projects for the construction of a transmission pipeline and a distribution network, with an estimated combined investment of more than US\$150 million. The first pilot project is located in the Guerdane perimeter (Souss Massa valley) and will provide an additional 45 MCM of water per year to citrus farmers affected by the overexploitation of the aquifer. It will be structured around a build, operate and transfer scheme, with significant public subsidies in order to keep water tariffs affordable for farmers. The second pilot project is located in the rain-fed agricultural area of the Gharb region.

In terms of capacity building at the national level, ISCAE (Institut Supérieur de Commerce et d'Administration des Entreprises) in Morocco has started a training course in collaboration with ESSEC, Paris, and with the support of Vivendi Universal. The objective of this programme is to develop skilled professionals in all the areas of private-sector involvement in terms of negotiations, concessions and regulations.

In Jordan, there is at present a major water and wastewater management contract for Amman that was awarded directly. The private operator responsible is LEMA, owned 75% by Ondeo, and 25% by Montgomery Watson. It is a four-year management contract which started in July 1999 with World Bank funding. The contract includes management, operation, incentive and investment fees, and seconded civil servants. Among the objectives of the contract are to decrease the unaccounted for water to 25% during the lifetime of the contract, to improve the reliability of water supply to users, to repair and replace water meters, and to improve customer services. A project management unit has been established to monitor progress and regulate the performance of the private operator. Since training is an important consideration, this contract provides for 18 000 hrs/year of staff training, mainly in the areas of technical activities, information systems, customer services and language. Training programmes are discussed with the regulator unit and are then adapted accordingly. This management contract is the first step to consider private-sector participation in Jordan. Based on the results of this effort, Jordan is expected to formulate the best form of private-sector participation in the water sector, including for irrigation.

The Jordan Valley Authority (JVA) is responsible for the irrigation and integrated development of the Valley. Currently, there is a 35 000-ha project, with appropriate infrastructures, and 10 000 farm units. JVA is aware of the need for change and formation of a new strategy, and of the benefits of private- and public-sector participation, which could contribute to its improved management and operation. JVA is in the process of formulating a management contract for irrigation systems, defining the rights and obligations of the contractor, deciding on the standards for systems operations, and selecting criteria for measuring

performances. A management contract is likely to be the best option under existing legislation.

In Yemen, there has been a gradual evolution from a focus on infrastructural development to management and institutional development, capacity building and participation of the private sector in water management. Not surprisingly, initially, there was resistance to the implementation of institutional reforms, restrictions in terms of providing incentives, and difficulties in applying tariffs which would allow cost recovery. The water authority has been decentralized, except for the recruitment of high-level staff. Currently, 16 of the 32 branches are autonomous, with their own board of directors and participation of the private sector. Yemen is now in the preparatory phase for including the services of private companies in the water sector.

While in several MENA countries international companies have to work jointly with their local counterparts, it is not a mandatory requirement in Yemen because local capacity still needs to be developed. The conditions required by the donors include cost recovery only on operation and maintenance, and 3% of future investment costs.

For Egypt, the case studies focused mainly on private participation in the irrigation sector. The legal framework has been amended to liberalize the agricultural sector, decentralize the water sector, including the participation of the private sector, and promote cost recovery. So far, the private sector has had limited involvement in terms of water user associations and water board projects.

Cost recovery in the country is now possible for irrigation projects, sub-surface drainage, new lands, and large-scale projects such as the Toshka. Since the operation and maintenance activities of irrigation projects are expensive, it is necessary to encourage farmers to pay at least part of these costs. The cost recovery based on consumption of water for different crops has been accepted more easily. However, achieving cost recovery based on the volumetric uses of water has proved to be difficult, mainly due to its economic and social impacts on users.

The Workshop also discussed the significant reduction in the costs of desalination in recent years, re-use of brackish water for irrigation, use of fossil groundwater, and the roles the private sector can play in all these areas.

It was agreed that if countries are to benefit from an efficient partnership between the public and private sectors, there are some issues that have to be addressed on a priority basis, among which are formulation of sound national water policies, development of proper legal, regulatory and institutional frameworks, and capacity building. In fact, knowledge and expertise on financing, negotiations, formulation and implementation of contracts, as well as the setting of proper tariffs, are necessary in order to obtain the best performances both from the public and the private systems. There is also a need to formulate cost-effective, fair and quick dispute resolution mechanisms, including international arbitration when necessary.

The participants agreed that the main objective should be to improve the efficiency of the water sector, and not specifically the participation of either public or private companies. The type of partnerships and assistance required may vary from one country to another, and may depend on the institutions involved, partnership structures, involvement of stakeholders, transparency and fairness in the governing structures, awareness-raising and good communication practices.



While motivation to use the private sector is often due to the belief that the private sector is more efficient than the public sector in terms of reducing costs and increasing the quality of services, various appropriate alternatives should be considered for each specific city with regard to the type of partnership that suits its existing social, economic and institutional conditions and political requirements. It was unanimously agreed that there is no single public-private partnership model that will suit all cities in the MENA countries for the next two to three decades. Each city must carefully consider the options that will suit its inhabitants the best. The long-term goal should be to provide efficient water and wastewater disposal services to all citizens at reasonable and affordable costs. How these services could be best provided should be carefully considered, and the appropriate alternatives should also be carefully considered, before the final decisions are taken.

It is essential to develop regulatory, legal and institutional frameworks in order to ensure that the interests of the private and public sectors, and most importantly, those of the users, are protected. It was also agreed that the public-private partnership is far more advanced in the urban water supply sector compared to the irrigation sector.

The Workshop was remarkable in the sense that the discussions were always focused on facts and experiences, and not on dogmas. The participants freely and frankly discussed all issues, some of which are controversial, as well as the difficulties, constraints and errors that were faced in the past. During the presentations of the case studies, the authors dispassionately pointed out how public-private partnership processes could be further improved in the future based on their own personal experiences. Not surprisingly, the discussions were sometimes heated, but invariably the debate was based on issues and not on ideologies or personalities. It is a real compliment to the organizers that they selected leading experts from the region who are objective and knowledgeable, and were always focused on the issues, even though the subject itself has often proved to be controversial in many major international fora.

The case studies are now being finalized by the authors in the light of the overall discussions during the Workshop. Thereafter, these studies will be edited and published by a major international publisher. Even though the focus of the case studies is on the MENA region, the publication will undoubtedly be of direct interest to anyone interested in public-private partnership in the developing world.

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