



Exploring Water Patterns in the Middle East

Water Sector in the Near East: Needs and Opportunities

***16-17 December 2006
Amman***

**International workshop
Workshop Report**

WORKSHOP SYNOPSIS

The December 2006 workshop in Amman, entitled "Water in the Near East: Needs and Opportunities," provided a space for discussing major issues currently facing the water sector in the region concerned. It outlined visions for future development, addressed major pressing issues of the day and discussed opportunities for partnerships with the private sector in various fields related to the region's water management and development. In addition it brought opportunities for networking and brainstorming.

The workshop was comprised of three sessions focused on the future of the region's water resources with respect to existing solutions, on partnership opportunities and on the challenges posed by managing shared water resources. After the main part of the workshop a public lecture, featuring distinguished personalities from the three Jordan valley countries, was transmitted via a videoconference to Prague where students and scholars listened to the contributions and engaged the panel with their questions. A private tour of a major Jordanian water facility and an informal brainstorming session capped the whole event.

The event was organized by the Forum 2000 Foundation in the framework of its "Exploring Water Patterns in the Middle East" project and in cooperation with the Royal Scientific Society of Jordan. The group of participants consisted of experts from the realms of politics, administration, private sector and non-governmental organizations (see the list of participants below), and included representatives from Jordan, Palestine, Israel, Egypt, and the Czech Republic.

LIST OF PARTICIPANTS

Shaddad Attili, Policy Advisor Water & Environment, Negotiations Support Unit,
Palestine Liberation Organization

Fayez Bataineh, Assistant Secretary-General for Planning and Information
Technology, Jordan Valley Authority, Ministry of Water and Irrigation, Jordan

Munther Haddadin, Chairman and CEO, House of Experience, Jordan

Emad Hassan, Principal Consultant, Nexant Inc., Egypt

Bassam Hayek, Director, Environment Research Center, Royal Scientific Society
of Jordan

Nuwwar Hussein

Josef Janečka, Director, EKODO, Czech Republic

Mohammed Ayman Jarrar, Director, Regulatory Direction, Palestinian Water
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Jakub Landovský, Researcher, Oregon State/Charles University, USA/Czech
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Munqeth Mehyar, Chairman and Director for Jordan, Friends of the Earth Middle
East

Mohammad Mosa, Environment Research Center, Royal Scientific Society of
Jordan

Philippe Odievre, Executive Director, LEMA Co., Jordan

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Jan Šnidauf, Project Coordinator, Exploring Water Patterns in the Middle East,
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Shimon Tal, Executive Director, Tal Consulting, Israel

Olga Zárubová-Pfeffermannová, Lecturer, Czech University of Life Sciences

INTRODUCTION

Water in the Region and Major Challenges

Jan Šnidauf opened the event with his introductory remarks. After welcoming the participants, he introduced them to the concept of Exploring Water Patterns in the Middle East (EWaP), a project run by the Forum 2000 Foundation under the auspices of President Václav Havel and H.R.H. El Hassan bin Talal. In cooperation with international partners, EWaP is dedicated to addressing and discussing the various dimensions that the questions of Middle Eastern water resources implicate, including political, economic, social, and environmental aspects. He then passed the floor to Munther Haddadin, former Jordanian Minister of Water and Irrigation, who first delivered a greeting from H.R.H. El Hassan bin Talal.

H.R.H. El Hassan bin Talal sent an eloquent greeting that alluded to significant connections between water and the history and geography of West Asia and North Africa (WANA). But on top of this cultural “tapestry,” he reminded the audience, stands the supremacy of policies over politics for “shaping the future” of the region. He turned to the Universal Declaration of Human Rights to reveal that while the highly-regarded document “does not expressly provide for the right to drink clean water,” it does declare the *‘right to a standard of living adequate for health and well being.’* Hence, because water is an essential factor for life and sanitation, it effectively “constitutes a basic human right.”

Like other speakers later in the workshop, H.R.H. maintained unrestrained population growth as the leading cause of water shortage. Policies must decrease the “population to water ratio,” he warned, otherwise development will truncate and the standard of life will decline.

The way forward must incorporate a strategy that confronts multiple challenges: more than just water scarcity, the region of WANA must address a scarcity of faith and trust, which is also endemic. To realize such a strategy, H.R.H. proposed, WANA needs an “all encompassing Regional Plan,” in which projects that enhance regional commons, such as a ‘Community of Water and Energy,’ will merge.” In conclusion, H.R.H. mentioned the well-timed recent initiation of the Red-Dead Feasibility Study, sharing his hope that it would “evaluate the ‘anthropocentric fallout.’” He then thanked the audience and wished that water be used for growth, peace and life.

In his keynote speech, **Munther Haddadin** spoke on water economics and the need for more specific terms and concepts in the water sector. Indeed, in the course of his speech, Haddadin raised several new terms and concepts.

He began by noting that while the Middle East knows it is short on water, no one has actually quantified “how short is short.” The quantification, he suggested, has to take up both the supply and demand for water. Water, too, has to be categorized as green water and blue water. Green water includes water tied up in soil and biomass, while blue water is the potable water of surface flows. The distinction is significant, for if one were to quantify the green water in Jordan, they would discover that Jordan possesses more green than blue water. He pointed to public management, where no effort is made to combine the governance of green and blue water.

Haddadin implied that if the supply of water can be split into two categories, then demand could be aligned along these categories as well. Concerning blue water, he delineated four categories of income at the point of use, and then drew clear connections between income bracket and demand, i.e. consumption, efficiency and diet (calorie intake). Primarily because of varying efficiency and diets, as income declines, he showed, demand for water increases.

If we can rank countries by their water poverty, then we "should be able to quantify just how poor they are," he said. To get more specific, Haddadin argued that countries are not water stressed; rather, water resources are stressed because population determines demand.

Comprehensive solutions to water stress will examine cost recovery, resource development and maintenance, as well as social and economic development. Haddadin highlighted cost recovery as essential in indebted countries, where the rich could subsidize the poor off the national treasury. To ameliorate water stress, development needs to accelerate in lower middle and lower per capita income countries.

Haddadin concluded by saying that no agreement exists between Israel, Jordan and Palestine over the Jordan River; Israel continues to use the full share of all three parties.

Discussion:

- Attili: Green water is a new concept. How should we educate the people about green water? What is your opinion about reaching an agreement on the Jordan River?
- Mosa: Would you agree that governments are part of the problem?
- Saidam: The general understanding is that the rich demand more water than the poor, but your relation between income and demand is the inverse. Could you clarify or elaborate on this critical point?
- Haddadin: Water is an essential part of life. Hence, it should not be hard to educate people about it. You convince people of the pressing need for action with numbers. As to the role of governments and the Jordan River, a multilateral consensus on the Jordan River Valley was reached in 1955.

The relationship between income and demand is explained by efficiency; the wealthiest people can afford to improve efficiency.

SESSION 1

Future Visions and Solutions

Olga Zárubová-Pfeffermannová moderated the session. She began by opening the floor to Mohammad Saidam.

Mohammad Saidam discussed water quality monitoring and resource management, the main objective of water quality monitoring. Water quality monitoring allows for mass data collection, which can be organized into a platform for water quality. Also, it enhances decision making in the water, agriculture, environment, and health sectors. Jordan's monitoring system has four primary strengths: real-time, accuracy, impartiality, and data storage. The interested parties include governmental planners and ministers, utility managers, consultants, farmers, academics and researchers, as well as the public. Anyone can observe Jordan's monitoring system by visiting its website.

After his introduction to the topic, he transitioned to an exposition of Autonomous Desalination Units based on Renewable Energy Sources (ADU-RES). These include units producing less than 50 m³ per day, which could be wind powered RO technologies, PV powered RO technologies and hybrid and solar-thermal applications. Water scarcity provides the impetus for these technologies, not market forces, he said.

Saidam then shifted his discussion to MedWater, or Mediterranean Water Policy, an EU-MENA alliance, which he described as a "policy initiative to overcome water competition between the vital economic sectors of agriculture and tourism in the Mediterranean." In order to reach its objective of an "integrated approach to water management," MedWater will push for a transboundary water policy initiative.

Finally, he introduced the Integrated System for Water Quality management, or ISWAQ, which will join “water quality monitoring and decision support modeling” to provide a comprehensive framework “for managing water quality dynamics.”

Mohammad Mosa briefly introduced the audience to the Royal Scientific Society. He then turned to the challenges and solutions involved in sustaining the Dead Sea ecosystem. The Dead Sea’s declining sea level is a result of the intensive diversion of the Jordan River coupled with mining and extraction activities. One dynamic solution – backed by USAID and regional authorities (i.e. ANERA and FOEMA) – is a canal that would convey water north from the Red Sea to the Dead Sea, a desalination plant with a projected annual capacity of 850 million m³ and a hydropower generator.

While many parties acknowledge that the canal is an imperfect solution (e.g. the canal would bisect several nature preserves), they nevertheless support it as the best solution for Jordan, Mosa said. The RSS distributed questionnaires throughout the public, tourism, hospitality, and industrial sectors in the area of concern: from the Dead Sea basin south across Ghors, Dana Village, and Wadi Araba to the north shore of the Gulf of Aqaba. Mosa reminded the audience of Aqaba’s significance as Jordan’s sole port, and a center for tourism, trade and industry. The survey’s findings, Mosa showed, reveal on average that 75 percent of the people in each sector not only support the project, but believe their sector will suffer if the project does not reach fruition.

While many farmers will lose land, the mineral industry some of its resources and archeological and nature sites some their integrity, the project will spur job growth elsewhere and may prevent sinkholes, enabling the expansion of infrastructure for tourism and industry. Ultimately, Mosa felt that certain prudence should guide the successful construction of the Red Sea-Dead Sea Project.

Nidal Al-Oran took up the Red Sea-Dead Sea's probable environmental repercussions. He showed that the "whole" of the Gulf of Aqaba and the Red Sea in "general" would be negatively affected until some sort of stabilization is reached. During this period of transition, Al-Oran said, "it is likely that the surface water temperature will increase gradually and salinity will decrease gradually in the northern tip of the Gulf of Aqaba" but, he added, this increase would not effect the thermohaline circulation. By ensuring a "homogenous water flow before and through the channel," down-welling and a decline in nutrients could be prevented. He concluded by saying that steps should be taken to mitigate the effects of dredging, water velocity, turbidity, sedimentation, and eutrophication.

Josef Janečka discussed his idea for a northern alternative to what he saw as an impending Red Sea-Dead Sea debacle; a solution that would bring surplus floodwater from the mountainous regions of Lebanon to the Dead Sea by means of a carefully located dam-like facility and an underground conveyance system. Janečka moved from an assessment of the current state of the Dead Sea to a critique of the Red Sea-Dead Sea Project. In his opinion, the project is going to be very cost intensive, not only because of the desalination and conveyance costs, but moreover because the influx of seawater from the Red Sea would increase total amounts of salt in the Dead Sea and, as a result, cause severe environmental repercussions and high incidental expenses. He asked that politicians, scientists and corporate leaders turn their attention to the north, where the alternative project offers a solution free of the deficiencies of the southern solution. He then detailed the plan for saving salt-free rainfall water from flowing off to the Mediterranean Sea and bringing it to a reservoir, where it would then follow a regulated flow into the Jordan River basin. In the end, Janečka stressed that the success of the project is not a question of technical

feasibility, but one of political agreement and cooperation among states, parties and people.

Discussion:

- Haddadin: The Red Sea-Dead Sea connection is only one component of a larger agreement. He felt that the governments concerned had dwarfed the larger agreement and focused on just this component. However, sight of the forest should not be lost by focusing on the trees. As for Mr. Janečka's proposal, the idea is not new but has been rejected countless times in the past, deserving to be finally buried.
- Haddadin & Mehyar to Mosa: Why did the RSS focus mainly on the social aspects of the Red Sea-Dead Sea project?
- Mosa: The RSS team did not have enough information on the project to assess the economic effects; that is why RSS focused on the social impacts.
- Mehyar to Saidam: Has RSS done anything to connect the tourism sector to the agricultural sector? Then, where should water be better directed – to tourism or agriculture?
- Saidam: The trade-off lies between traditional production and present and future investment.
- Mehyar: Subsidizing water for farmers is not feasible for Jordan. The hotels along the Red Sea are not developed.
- Haddadin: One study grades agriculture as 3.5 percent of Jordan's GDP, but dissenting studies show it as high as 25 percent of GDP. Admittedly, tourism brings in money and employs Jordanians, but Jordan in effect exports its water to tourists while they stay. It is necessary to think wider and deeper.

SESSION 2

Private Sector and Partnership Opportunities

In the moderator role, **Jan Šnidauf** opened the second session and passed the floor to Philippe Odievre.

Philippe Odievre familiarized the audience with the LEMA public-private partnership, its successes and a perspective on the way forward. Soon after LEMA is dissolved a Jordanian water company, Miyahuna LLC, held by the Water Authority of Jordan (WAJ), takes control.

LEMA was conceived with the aid of a US\$ 25 million loan from the World Bank, which covered management fees and an operation investment fund. Leakages, a low collection rate, poor asset management, inefficiency, weak financial integrity, and a reactive management - as opposed to an active management - were paramount among the many problems LEMA had to solve. To encourage water conservation, LEMA enforced a progressive tariff on water consumption, resulting in a situation where the heaviest users subsidized the utility. By 2005, LEMA had increased its unit cost efficiency, improved its staff efficiency, was recovering its operational costs and making certain profit.

In retrospect, Odievre said, the initial management contract determined the LEMA partnership's chances for success. One lesson learned was the secondment of civil servants to LEMA from WAJ, who provoked internal constraints because of their double status. In the future, he advised, the operator must control the budget/revenue and procurement for the sake of commercial performance.

In his speech, **Emad Hassan** argued for an increased presence of public-private partnerships in resource development. He cited Egypt's most recent economic growth as a case where the involvement of the private sector in development led

to a great boon for the general public. The public sector, he asserted, can play a sustained and complimentary role with privatization.

On the strengths of public-private partnerships, Hassan remarked that “market initiatives combining the creativity, profit motivation, and entrepreneurship of the private sector with the strong knowledge base and national responsibility of the public sector can be effective vehicles to achieve desired natural resource management goals.”

In conclusion he said that public-private partnerships require a roadmap that charts shared goals, a patient policy that balances “market economy principles and public interests,” incentives for each sector, and a shared understanding of each partner’s strengths and weaknesses.

Discussion:

- Bataineh: Clients are not well acquainted with public-private partnerships (PPPs). There is a gap between the two sides.
- Hassan: True, while governments can also be too territorial. On the other hand, the private sector can be too hungry for money, as well.
- Mehyar: Regional cooperation is the only way forward. LEMA has greatly changed the water situation in Jordan, but water is a public domain property. Therefore, one must ask: is it desirable to have people making money off the water itself? Also, is there any kind of recycling of the water?
- Odievre: Jordan will be able to recycle more and more water in the future. As for earning profits, water-related companies have to at least recover their direct operational, financial and managerial costs. These companies have to operate with profit as a goal. The question is how they will use this profit, whereas the best choice, in his view, is that any profit be re-invested back into the water system.

- Mehyar: Average citizens pay for the agro-water subsidies.
- Odievre: Profit in this case means that your costs are less than your revenue. Companies want to operate with these results or else they have a situation where the citizens pay for the whole system. The consumers should pay for their water, which is linked to avoiding that citizens subsidize the whole system.

SESSION 3

Shared Water Resources – The Challenges

Bassam Hayek of the Royal scientific Society chaired the third session.

Fayez Bataineh commenced the session by insisting that no profit should be made in the water sector. In reference to Hassan's roadmap for PPPs, he noted that while investments were coming, the country's water authority didn't exactly "know to which road it had agreed." In the past, he said, water management had been split between Amman and other regions in Jordan; but in 1988, the government decided to consolidate management under one authority.

Solving the challenges of shared water resources involves improving legislation and expanding cooperation. "The time has come to go further regarding water management in Jordan," he said. In the future, all Jordanian water authorities should underlie one ministry in name and operation, he concluded.

Shaddad Attili recalled the post-Camp David discussions concerning land settlement between Israel and Palestine. Palestine accepted the concept, but the discussion collapsed, he said, because both parties could not agree – among other things – on a ratio of access to water; the respective proposals were 1:1 versus 1:3. The negotiation subsequently failed and Israel decided it wanted to build a wall along the green line. Palestine acquiesced to the construction despite the boundary settlement. Since the wall, he continued, "Israel has never supplied Gaza with its promised water. We have to address this problem now because a crisis is upon us." Since the interim agreement, per capita water availability has declined by more than 50 percent. Hence, while having an agreement is constructive in general, Palestine has failed to benefit from one.

Palestine and Israel are both suffering from water scarcity, Attili stated. At Camp David, Israel suggested that Palestine should pursue water desalination technology on its own, but "Palestine understands that without cooperation we're going nowhere," he said. For the Palestinian state to be viable and stable, it must be supplied with water. In Gaza, according to him, laws do not effectively apply, and inhabitants are overdrawing from aquifers. It's Palestine who is to be blamed for that, but Palestine needs to be able to offer its people an alternative. Desalination is not the solution, while infrastructure development would be one. Palestinians believe a solution exists and all must continue to strive for it.

Shimon Tal reminded the audience that "water is one issue in a constellation issues. In the end, he believed, "when issues like security and refugees are resolved, water will be the easiest to solve."

As he showed, in 2000 Israel, Palestine and Jordan reached 200 m³/yr/capita, which is approximately 40 percent of the UN's "red line" of water shortage. Looking ahead, he estimated the region would need an additional 80 million m³. A sustainable approach would require a reliable water supply, improved efficiency, significant strides toward conservation, and relevant administrative and constitutional reforms by 2010.

He disagreed with Shaddad Attili, saying "we have to develop desalination, even on a small scale, because redistribution of a scarce resource will not lead to a permanent solution in water-stressed countries. This is why we must work together." Since 1990, developments in technology and economy have reduced the price of desalinated water by nearly 50 percent. With the completion of the desalination plant in Hadera, Israel will begin exporting a total of 70 million m³ to Palestine.

Similar to Jordan, Israel's water sector administration will come under a single ministry next year, he said, while the actual management of water will pass from the ministry to the private sector. Tal also urged that "water conservation has to become a way of life," hence the need for education, publicity and advanced water-saving technologies leading to this aim.

Ayman Jarrar agreed whole-heartedly with Shimon Tal that demand for water is increasing and regional cooperation is the path to meeting that increase. He referred to Article 40 of the Oslo II agreement as the foundation for water-sector planning in the region, but noted its leaden and fragmentary implementation. As a result, development in Palestine has been fettered and haphazard. He provided figures to illustrate the state of affairs: per capita consumption is 60 l/day and 81 l/day in the West Bank and Gaza, respectively; unaccounted water makes up 30 to 50 percent of supply in "most communities"; approximately 60 percent of the population has no connection to sewage; less than 1 percent of all discharged sewage is properly treated.

As a first step to cooperation, he said, the neighbor nations must share information. Palestine gives information to Israel, but receives none in return. He cited the western aquifer within Israel as one instance where Palestine needs more data. At one point, he asked whether there has been any communication between Israel and Palestine concerning water since the democratic elections.

Beyond communication, Jarrar noted Palestinian water shortages and the problems of access to resources, maintenance of water services, water quality preservation, and development of a record of cooperation, which is prerequisite prior to signing future agreement. He finished by sharing his hope that Oslo II becomes a reality on the ground.

Jakub Landovský wrapped up the third session with a brief discussion of the importance of an institutional framework, where conflict can have a prospect to become cooperation. He stated that, generally, conflict over a river basin occurs where a sudden or rapid change hits either the physical terrain, e.g. a natural disaster or the construction of a plant or dam, or the political climate, e.g. an election ushering in a new party, or both. Furthermore, the likelihood of conflict rises when institutions are not able to absorb, manage and mitigate change. The three biophysical causes of stress threatening the Jordan River basin are drought, increasing aquifer withdrawal and salinization from poor water management, he said. Socio-economic stresses include population growth and increased demand by industry and general development. Finally, but nonetheless significant, the litany of geopolitical stresses is a factor: power asymmetry, hostility, clashing ideologies, shifting borders, unsettled claims, state disintegration, and a forced dependence on transboundary water resources.

Landovský then struck up the issue of treaties and distinguished a treaty's core from its auxiliary provisions. With regard to water treaties, the core provisions concern matters of allocation, quality standards, control, development, navigation and borders. The auxiliary provisions concern issues of monitoring, joint management, resolution and amendment mechanisms, and a date of termination. The challenge of settling the core provisions lies in striking a balance between clarity and the cost that agreements bring to sovereignty and politics without nesting the final document in ambiguity. In his closing remarks, Landovský offered the view that if the core provisions of an agreement are specific to a given situation, then the auxiliary provisions ought to equip the agreement for change and stress. Such treaties, he implied, form the foundation of a lasting framework for cooperation.

Discussion:

- Tal: He referred to the future necessity of dealing with excessive sewage effluents.
- Mehyar to Landovský: The Rio Grande example used in his presentation is odd because the basin is dry; nonetheless, its use as an example parallel to the Jordan River is common. To Tal: Water can be an ideal space for cooperation, in place of conflict. People are only now realizing the need for wastewater reuse.
- Landovský: The example of the Rio Grande treaty, not the river itself, was used to illustrate the ambiguity in core principles and the rigidity in treaties.
- Attili: He reiterated his view of water as a space for cooperation.
- Tal: In the West Bank, water treatment plants have not been built because of security issues, not because of any inaction or disinterest on the part of the Israeli Water Commission. The institution has dedicated much effort to the West Bank.

VIDEOCONFERENCE with audience in Prague

Munther Haddadin commenced the session with a short history of water management in Jordan. Water has been managed under one ministerial umbrella at times and under separate entities and authorities at others, he said. In the 70s, 80s and 90s Jordan had to manage the conflict with Israel while not communicating with the country, which implied the impossibility of having meetings and open agendas. Turning north, he said the current situation with Syria is not a real dispute, as it differs from the case with Israel.

Shimon Tal then explained that all three panelists live in a water-scarce region. "We understand," he said, "that we will not be able to live in this area without an efficient and wise use of water resources." He went on to say that water must be developed for the good of the country and people. Therefore, projects and actions should be executed according to government plans.

As water is central to the development of all public sectors, the water sector requires planning, and any plan has to consider regional factors. In the past seven years, Israel has changed its water management policies toward developing new water resources, such as the reuse of water effluents for agricultural purposes and thereby freeing up fresh water for other uses. Israel is also pursuing desalination and in total, Tal estimated, the country should be able to increase its water resources by 55 percent. In doing so, Israel hopes to end its suffering due to shortage of water. The challenge will lie in finding methods for farmers to survive in an economic and resource environment where costs are inevitably going to rise.

"For peace and a decent life in the future," Tal ended, "we must start cooperating in the production of new water resources; this is a part of the agreement between Israel and Jordan. On the management side, we have to increase efficiency so that the ends of supply and demand meet mid-way."

Shaddad Attali believed the problem of water scarcity in the region required a political solution. While he found the concrete discussion with Mr. Tal as a representative of Israel fruitful, he indicated that in other contexts the issue would become "quite complex."

He added, though, that a new perspective was emerging in the region. Specifically, some major actors in the field believe they can take water out of the political equation by relegating it to the technological realm. Attali disagreed with Tal on desalination as a solution to water scarcity. He also noted that "when the Palestinian state is realized, approximately 1 million refugees will likely return and they will want to drink. And we will want to settle them in the Jordan Valley on the Palestinian side."

As moderator, **Jan Šnidauf** brought the lectures to a close, noting that the trio of Jordanian, Israeli and Palestinian views delivered from a common table was representative and unique. Then he opened the floor for questions from the audience in Prague.

Discussion:

- Audience: How does Israel deal with water in Israel's settlements?
- Tal: Settlers are treated like other citizens and they get the same service as other citizens elsewhere in Israel.
- Audience: Could you discuss the role and extent of privatization in the water sector of Jordan?

- Haddadin: We consider the privatization of water services and this notion has spread all over the country. The costs are higher, but efficiency has improved. However, the supply will remain public. For instance, the Aqaba Water Co. offers shares, which at this point are held only by public entities.
- Attili: Israel has privatized Palestine's water resources. In any case, the privatization of services in Palestine is not widespread at the moment.
- Jarrar: Actually, Palestinian law calls for privatization, but at the moment, due to instability, there is no chance for privatization.
- Tal: Israeli authorities are developing the water system at the moment, which couldn't be done without the private sector. The state simply does not have the funds in the national treasury. The method used is tenders for companies. Management may come from the private sector, but the responsibility will continue to fall on the public sector.
- Audience: What are the speakers' comments on the feasibility of the Red Sea-Dead Sea Project?
- Haddadin: "I am not impartial on this issue, since it is like asking a mother about her daughter." The Red Sea is an open sea, and though its salinity is higher than the Mediterranean, it is not an obstacle. The problem might be mixing in the Dead Sea and the unknown impacts when two highly different solutions meet. The project is a model for cooperation among regional adversaries. It involves a notion of development for each and every sector of all participating countries. "I hope I will see my daughter get married before she turns twenty-five".

Closing Remarks:

Jan Šnidauf attempted to wrap-up the entire event in his closing remarks. Looking back, he thanked H.R.H. Prince Hassan bin Talal for sending his wonderful words and Dr. Haddadin for a current and comprehensive picture of the water sector situation. He thanked the participants from the first session for

offering an expository look at the visions and future scenarios presented. He further expressed his thanks to the speakers in the fifth panel for outlining the possibilities and principles of public-private partnerships in water resources and administration. He also thanked the speakers from Israel, Palestine, Jordan and the Czech Republic for their take on the challenges confronting the region's water sector in the third session. Last but not least, he appreciated the general and at the same time insightful presentations delivered during the final public lecture, which was to mark the end of the day's events, and expressed gratitude to all participants for their attendance.

DAY 2: Workshop Round-up

Jan Šnidauf introduced the final round-up by bringing into conversation several salient topics to be considered in respect of the water-related issues, such as the need for a focus on governance, the spread of democracy, external factors, the influence of political atmosphere, and centralization versus decentralization of administration.

Discussion:

- Tal: A balance between centralization and decentralization must be found. Once water is allocated to a region, that region should autonomously decide what to do with it.
- Saidam: I agree. However, some technical tasks should be completed by a superior regional authority.
- Šnidauf: It seems two kinds of decentralization have been considered: sectoral and geographical.
- Saidam: For now, all matters in Jordan are in the hands of the Ministry of Water and Irrigation. But at the same time, with companies being formed, things are bound to move toward decentralization. This trend will bring a reduction in bureaucracy.
- Tal: These new companies will manage water much more efficiently and use their profit for development and maintenance of infrastructure. Regional cooperation is emerging now, which should be separated from the political level. The private companies will have licenses that regulate the pumping and they will supply the water to consumers. The role of the central government will rest in regulation. These are, however, issues far beyond the Israeli-Jordanian treaty.
- Saidam: What has been accomplished since the conclusion of the agreement?

- Tal: Why, almost everything stipulated in the agreement has been implemented.
- Saidam: Nevertheless, what are the indicators hereof?
- Tal: Looking at the water agreements, they are obviously being fulfilled. Israel is aware that water is essential and it supplies the Palestinians with more water than was agreed upon. Israel has built a special pipeline that goes from the national water carrier to Gaza and delivers 50 million m³ of water per year. The agreement stipulates that Israel has to supply Gaza with 5 million cubic meters from desalination, but the price of desalination would have to be paid. Instead, poor people pay much more for bottled water.
- Saidam: They pay much more, like in Jordan, but only for small quantities, i.e. for drinking.
- Tal: That is a politically motivated situation. People would pay less for a day's supply than for that amount of bottled drinking water. The U.S. built a special pipeline to Gaza, allowing for a water system.
- Saidam: The negative effect of open sewers must be taken into consideration.
- Tal: Also, the U.S. is currently building a sewage treatment plant, so that people of Gaza can help themselves more.
- Saidam: The people of Gaza cannot do anything until the occupation ends.
- Hassan: "I agree with Mr. Tal in that you need to bring in some people trained in operations." This is not the place for political discussions. The difficult issue is finding a pilot project or an initiative. "My suggestion is that in addition to the current efforts you focus on the development of alliances between electricity and water to reduce costs." Such a strategy is documented in case studies. Can the region breed a strategy that would be replicable as a model?

- Landovský: On the other hand, if the focus is only on water issues, they will prove solvable. Therefore, water must be the focus.
- Tal: Water in the Jordan Valley cannot be negotiated with the Palestinians until the border dispute is resolved. That is why a decision was taken on the northern part of the river while leaving the southern section unanswered.
- Šnidauf: When Forum 2000 brings together only practitioners for an informal meeting, a political impasse will inevitably be reached. Then, is it useful to bring together practitioners with a group of politicians?
- Tal: Forum 2000 cannot help in finding solutions. That must be done on the bilateral level. Instead, it should focus on development projects that will continue despite the political situation.
- Saidam: It is always essential to discuss objectives. What is the objective in such a case? Without an objective, the project will come to a standstill as has sometimes happened in the past. With a realistic objective, chances for success are high.