

WHY CITIES ARE LEADING
ON CLIMATE MITIGATION

the Source

A new path to peace

“ This is important
for the world, not just
the region

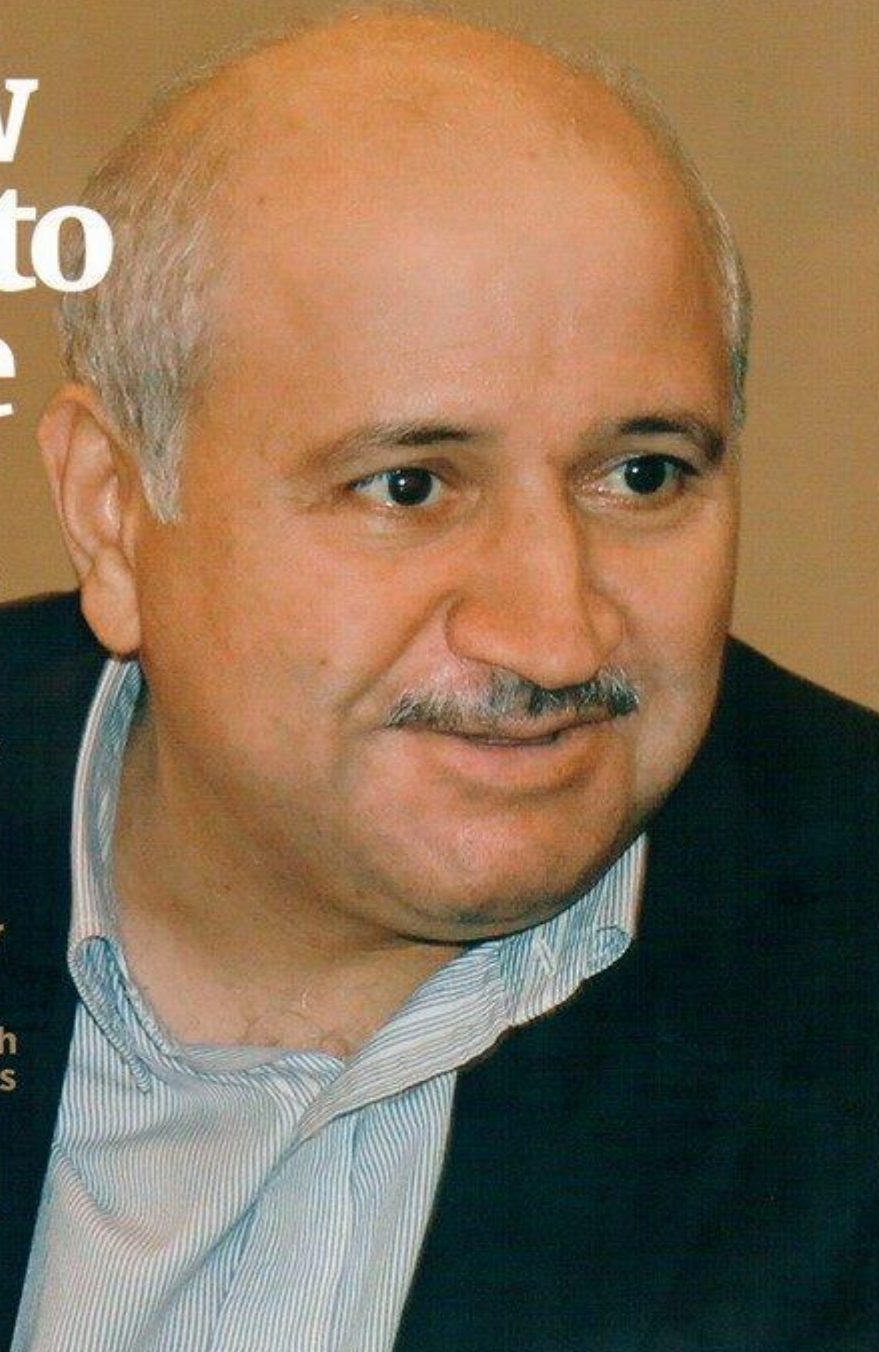
Jordan's Minister of Water
on the landmark agreement
with Israel

China's strategy to
transform wastewater
treatment

Why a nexus approach
is critical for managers

How utilities can
go carbon-free

1 | October 2015



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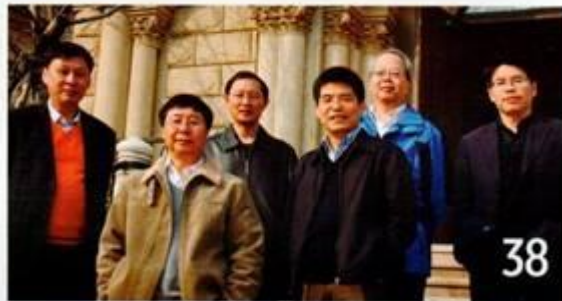
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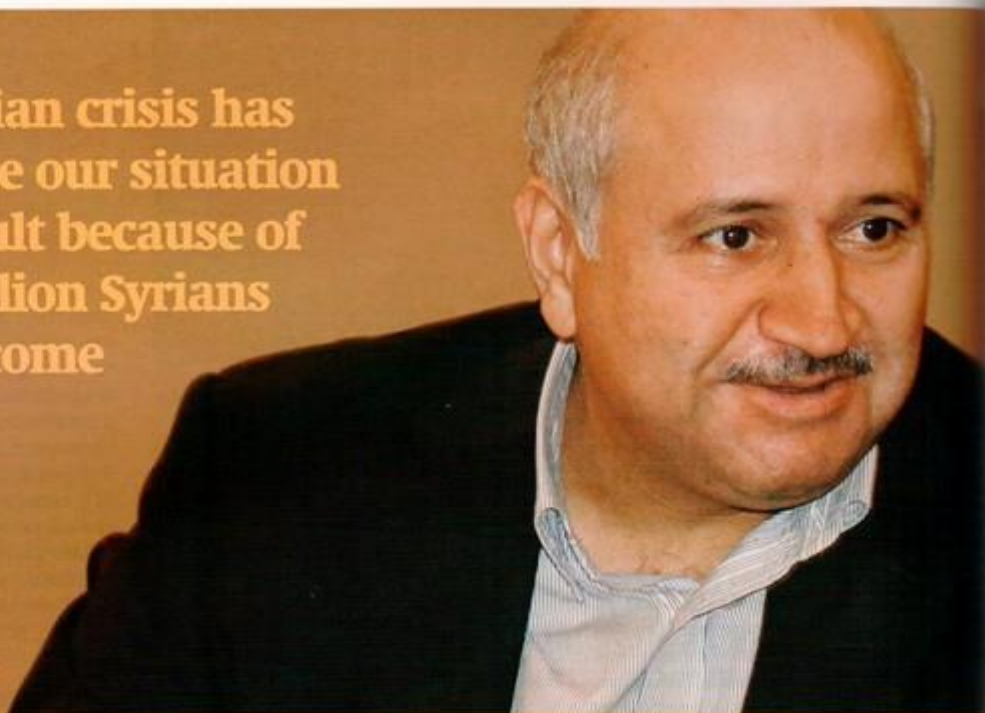
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“The Syrian crisis has again made our situation very difficult because of the 1.4 million Syrians that have come to Jordan



Dr Hazim El-Naser

Minister of Water and Irrigation, Jordan

Jonathan Andrews met with **Dr Hazim El-Naser**, Minister of Water and Irrigation, Jordan, to discuss the impact of the Syrian crisis on his country's water resources, new cooperation with Israel and the Palestinians, and his personal dream to create an international training centre for water leaders

Jordan receives 80 percent of its water from aquifers, yet at the current rate you've stated that these will be empty in 10 years' time. Could you explain the policies that Jordan is putting in place to tackle this?

The groundwater resources are of strategic importance to us as simply this is the main supply of drinking water, that's why we take all possible

measures to protect these resources and to make them more sustainable. In the past we had some malpractices in groundwater management where we used the groundwater aquifers beyond their sustainable yield. For the last few years, the Government of Jordan has taken very strict measures to protect them. These measures include a ban on drilling new wells for

agricultural purposes, and surcharges on groundwater resources that we used as a demand management tool to minimise consumption by the farmers. We also passed a law which imposes tough fines on any illegal drilling of groundwater wells or polluting of them.

Your country has received millions of refugees since the outbreak of fighting in Syria. What pressure is this placing on your water resources and are there tensions between the local population and refugee population?

The Syrian crisis has made our situation very difficult because of the 1.4 million Syrians that have come to Jordan—none of them brought a cup or a litre of water with them. It

is the responsibility of the Jordanian government to supply water to these people who live in refugee camps in the middle of the desert. We took certain crisis management measures where we again over pumped our groundwater resources beyond a sustainable level.

The availability of water resources per capita in Jordan is among the lowest in the world and does not exceed 120 cubic metres per year. With the Syrian crisis, this increased our water demand by an average of 22 percent but in certain areas, where the Syrian refugees are concentrated, water demand increased by 40 percent, which means that water and sanitation infrastructure has had to expand. We have to do today what normally takes 10 years, with all the associated capital investment.

Even between Jordanians we have tensions about water, with the Syrians this is less so as they are poor

management so we can protect the environment and reduce costs.

The Water Conveyance Project signed by Israel, Jordan and the Palestinians will see a desalination plant built by the Red Sea. How will this impact on your water resources and how will it support your stated policy of including a greater mix of ground water, desalination, and reuse?

We use today about 800 million cubic metres of water, so this project will bring 85 million cubic metres to Jordan, or 10 percent more. The beauty of the project is not only the extra water for the drinking water supply, but it will also protect the environment of the Dead Sea, which is declining at an annual rate of 1 metre. By doing this project, we will bring more water to the Dead Sea to stabilise its levels.

This is also a very important political project between the Israelis, Palestinians and Jordanians and is the

“The beauty of the project is not only the extra water for the drinking water supply, but it will also protect the environment of the Dead Sea

people escaping from the killing and a hostile environment. The Jordanians understand this but this is a problem for all of us.

In developing water sources how does one balance environmental concerns with such human crises and the insecurity of water supplies?

When it comes to drinking water, because water is not just a question of service delivery, it is more integrated with social, economic and political consequences, the measures we took were all under crisis management which means they were both financially and environmentally expensive. In some cases, the camps were threatening the groundwater resources through the infiltration of wastewater to the aquifers.

We managed to solve this problem partially but now we are trying to convince donors through our response plan and resilience plan to move from crisis management into mid-term

first project to be signed by the three parties. We signed this because all parties are in need of water and it is different from any other infrastructure project. That is why we have to make sure this project is successful because it will be the gateway for other regional projects and will be a very important element for peace building.

The brine, leftover from the desalination plant, will be piped to help replenish the depleting Dead Sea. Some have called this a “drop in the bucket”, what do you say to them?

I say to the critics, give me the US\$15 billion for the full project so we can have not a drop but hundreds of drops in the bucket.

How is it to be piped to the Dead Sea and is this enough to stop a further decline in water levels?

It will be pumped at the beginning [to the highest point in Wadi Araba] and then gravity-fed down to the Dead Sea.

How will the project be financed?

Under a build-operate-transfer scheme but for the brine disposal pipeline, that will take care of the environment of the Dead Sea, we are seeking grants from the international community. There are some contributors for now but not for the full amount of US\$350 million.

There have been some criticisms from Palestinian environmental groups about the project that say there is nothing in it for them, arguing the only beneficiaries will be Jordan and Israel and they will be committed and coerced to buy Israeli desalinated water. What is in this agreement for the Palestinians?

The overall agreements of the project allocate water for the three parties. The Project Agreement recalls the previous agreements including the 9 December, 2013 trilateral agreement [Memorandum of Understanding on the Establishment of the Red Sea-Dead Sea First Phase, and on the water solutions for the region] signed off by the three parties which included an agreement on the sale of 20 to 30 million cubic metres of water from Israel originating from its Mediterranean Sea desalination plants. This would be delivered at agreed upon supply points and will be discussed between Israel and the Palestinian Authority.

Also, the infrastructure of the Red Sea-Dead Sea conveyance project in its first phase will be built on Jordan territories, including the desalination plant, which will be constructed in the vicinity of Aqaba. This is very remote from the Palestine state borders and hence they cannot benefit directly from the intended infrastructure. The only part of the infrastructure that extends to the Dead Sea is the brine disposal pipe. So the Palestinians would need to sign up to this agreement in order to benefit from the agreement with Israel to sell 20 to 30 million cubic metres of water to the Palestinians.

Jordan is the only one of the three signatories that is eligible to borrow from the World Bank. Is the World Bank providing financing?

The World Bank is providing technical assistance at this stage but the World

Bank is helping us with a donors' conference that we want to hold at the end of the year to bring all parties together, including Israelis and Palestinians to find a way for financing the environmental part of it.

When will you issue the first tenders for construction and will this be a joint build between Israel and Jordan, encouraging further partnership in using both countries' water expertise or is this being managed by one country through a consortium?

We will issue the first tender for construction before the end of the year although the tender documents have already been issued.

It will be constructed and administered jointly through the private sector. Also, the project will be on Jordanian soil and run according to Jordanian laws. We have an agreement with the Israelis to make sure they get their water free from any problems or obstacles but they have to pay for the water.

The Israeli Water Authority released a report in June that recommends reducing desalination use as it does not need to build any more plants. Why do you think Israel is now stepping in and agreeing to this partnership and initiative?

It is known to all that Israel has built many desalination plants on the Mediterranean coast with capacity to produce about 600 million cubic metres a year. These plants can serve most cities and villages in the northern part. Having a source of water in the south will serve the southern region; in addition this initiative will serve to accomplish another important objective, which is to save the Dead Sea from further environmental degradation.

Do you think the project is a stepping-stone for cooperation between Israel and Palestine or could it be a source of further tension and become a political bargaining tool?

This project will be very important for the whole world, not just for the region. Everyone is saying that water is an element for conflict and if we are successful with this project we can



Oxfam public health staff add the finishing touches to 95,000 litre water tanks to increase the water storage capacity in the Za'atari refugee camp in Jordan

© Karl Schember/Oxfam

“ My next job or project, whether it be from within the government or outside, is to create an international centre to create water leaders

show the world that even with the most troubled, sophisticated and complicated political issue in the world—Israel, Palestine and Jordan—we have managed to get the water to flow through cooperation and peace building.

How does one safeguard the right of each country's citizens to receive water from the new project?

We always have a Plan B. If this project does not fly for one reason or another we have other options but they are more expensive.

This is your second stint as Minister of Water and Irrigation, with the first being between 2001-2005. How have things changed in those 10 years?

The problems are becoming more complicated and more chronic. Whatever we do, we still have a long way to go to find a partial solution to our water problem. This is a long-term problem

that Jordanians will live with for many years to come. We have to do everything possible to safeguard our water resources and also protect the environment and give our people clean water.

In between your periods as minister you worked as a water and irrigation consultant for several major international development agencies in Palestine and Iraq. What insights did you gather from that and what has it enabled you to bring to Jordan in terms of water management?

Definitely this was very important as I learnt how donors think—being a donor more or less. I also looked to the experience of other countries and how they are more or less trapped in their bureaucratic regimes and bureaucratic laws and by-laws which helped me when I came back to ensure that this was not going to happen in Jordan.

How can we improve capacity building and knowledge sharing in water resource management? What in your view are the critical issues which we need to train governments to handle?

Capacity building in terms of institutional building and human resources development are very important matters. Institutional building does not need a miracle to build, it's not impossible, we can have the best institutions. The problem is with human resources and this is not only in Jordan, it's the whole Middle East and maybe the whole world.

Water experts have to be multi-disciplinary. They have to understand economics, finance, engineering, politics, social and economic development and the environment and so on. You can see that is why the world is lacking water leaders.

My next job or project, whether it be from within the government or outside, is to create an international centre to create water leaders, not to have someone with a degree in engineering, or geology or whatever, but to have people with multidisciplinary skills so that they can be good managers and move things forward.

Would you like to see this hosted by Jordan?

In Jordan or any other country, if Jordan is happy to host it then we would do it in Jordan otherwise we would do it somewhere else because this is something that the whole world is in urgent need of.

The dedicated water and sanitation Sustainable Development Goal 6, is related to water. With the cost of funding the goals estimated to be between US\$3.3 trillion and US\$4.5 trillion a year in state spending, investment and aid, shouldn't the focus be on financing and implementation rather than definitions?

I have my own views on the SDGs. They are not catering for the specific and local needs of the countries. They are very generic and they apply the same objectives to South America, for example, that has a lot of water, as to the Middle East. Our view is that different regions are in different needs. In certain areas, we need to link the

SDGs to other issues. For example, in the Middle East we need to link this to water scarcity and security and in other countries we maybe need to link it to democracy and freedom, or education. That is why I am not very optimistic about how the world, especially developing countries, will be able to deal with the SDGs.

The other problem is that they have no ownership. The objectives and goals and programmes are thrown up in the air and you can collect whatever you want. When countries make their performance indicator reports they find they don't do these projects because it is stated in article '7.2' or whatever of the SDGs, countries do this because we have to do this.

Your country will host the IWA conference in October, how important is it for Jordan to host this and what will you be showcasing during the conference and exhibition?

This is very important for Jordan because this is an opportunity to show the world the water situation in Jordan but also to share our experience with the world. Also, we want to tell the world that despite the challenges, despite water scarcity, Jordan is converting this challenge into an investment opportunity.

The Jordan water sector has been implementing investment opportunities including the Disi Water Conveyance Project and As-Samra Wastewater Treatment Plant and its expansion with private sector partnerships. The overall investment in



The Minister at the World Economic Forum

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What practical architecture do we need to implement at a national or regional level to achieve these goals?

The water problem, mainly, at the country level is a local governance issue. Local government is much better than regional government and regional government is much better than national governments. There is a lot of work to be done and international organisations like the UN, the World Bank and others, they should work on programmes that focus on regions and people.

these two projects exceeds 1.5 billion Jordanian dinars (US\$2.1 billion). The average yearly investment in the water sector is about 350 million Jordanian dinars. The Red Dead Project/Phase I investment may reach US\$900 million.

I want to thank the IWA for considering Jordan to host the conference. The IWA, frankly speaking, is one association that I believe in terms of what they do and their deliverables. I hope this conference will add to the knowledge and strength of the association and of Jordan. ●