



ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

Events-News-Politics-Projects-Environment-ClimateChange-Neighbourhoods-Cooperation-Disputes-Scarcity and more



ORSAM WATER BULLETIN
12 September-18 September 2011

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❖ Statkraft to build its third hydropower plant in Turkey

(Oslo, 16 September 2011) Statkraft has decided to construct the Cetin hydropower plant in Turkey. The power plant will be Statkraft's largest hydropower plant outside Norway, with an installed capacity of 517 MW. Cetin will have an average annual production of 1.4 TWh, enough to supply electricity to 460,000 Turkish homes. The investment cost is estimated to about EUR 500 million.

Cetin is located on the Botan River, a tributary to the Tigris River in the Siirt province, in the southeast part of Turkey. The project is planned with two dams and two power stations. Cetin Main will have an installed capacity of 401 MW and a significant reservoir. Further downstream, Cetin Lower is planned with an installed capacity of 116 MW.

The civil works will be conducted by a Joint Venture between the two Turkish constructors Yuksel and Ilci. The Austrian company Andritz Hydro is nominated as contractor for electro-mechanical equipment. Cetin will employ about 1500 workers during the construction phase.

- Cetin will considerably increase Statkraft's capacity in Turkey, in line with our strategy to become a significant generator of flexible hydropower in Turkey. Cetin is a sustainable project, providing Turkey and Europe with more pure energy while creating jobs and local development, says EVP International Hydropower in Statkraft, Øistein Andresen.

Turkey is the fastest growing power market in Europe, and the annual electricity demand is expected to double from 200 to 400 TWh by 2020. Hydropower today generates about 20 percent of the electricity used in Turkey, and there is substantial potential for further hydropower development.

Statkraft's first hydropower plant in Turkey, Cakit (20 MW), started commercial operation in June 2010. Kargi (102 MW) is under construction and is expected to be operational by the end of 2013. After the completion of Cetin in 2015, Statkraft will have a total capacity of 639 MW and a total annual output of approximately 2 TWh in Turkey.

Statkraft is Europe's leader in renewable energy. The group develops and generates hydropower, wind power, gas power and district heating, and is a major player on the European energy exchanges. Statkraft has 3 300 employees in more than 20 countries.

“Statkraft to build its third hydropower plant in Turkey”, 16/09/2011, online at: <http://www.cisionwire.com/statkraft-ext/t/statkraft-to-build-its-third-hydropower-plant-in-turkey,e259482>

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❖ Iraq to resume oilfield water injection talks

Reuters reported that Iraq expects to resume talks with oil majors this month on a multi billion dollar oilfield water injection plan after disagreement over costs suspended the project for months.

Exxon Mobil was picked on behalf of foreign oil firms to lead the mega water injection project needed to boost crude production rates from Iraq's southern oilfields. International oil companies that won contracts in southern oilfields include Royal Dutch Shell, Lukoil, BP and Italy's ENI.

Mr Abdul Mahdy al Ameedi head of the ministry's contracts and licensing directorate said that Exxon Mobil with other companies, have reviewed their position and returned with new suggestions and ideas that agree with the Oil Ministry's demands. I can say we will reach an agreement with companies this time.

Mr Ameedi said that the Oil Ministry would start studying a revised version of a heads of agreement which governs the principles for starting the project along with new proposals submitted by Exxon Mobil and the other companies after 3 day roadshow September 11th to 13th 2011 in Jordan. Iraqi oil officials will present protocols for its 4th energy auction scheduled for late January to potential bidders at the meeting in Amman.

He said that we are busy with the fourth auction road show now and after finishing it we will straightaway start studying the new proposals and the revised heads of agreement. We will resume meetings with Exxon Mobil and other leading companies after mid month.

OPEC member Iraq has signed a series of deals with oil majors to develop its largest oilfields and is seeking to boost production as the country pulls back from years of war and economic sanctions. The water injection scheme would help raise extraction rates and maintain reservoir pressure to overcome production declines at fields such as West Qurna, Majnoon, Zubair and Rumaila.

Iraq had previously agreed with the oil companies that the project needed to be built in phases with the Phase I to involve the pumping of 2 million barrels per day of water to Rumaila, Zubair and West Qurna Phase I. The companies wanted to double that amount to 4 million barrel per day. While the total cost of the project remains uncertain.

An Iraqi government official said that last year it was expected to exceed USD 10 billion. To overcome disagreement over the cost, Iraq has suggested starting pre Front End Engineering and Design and Front End Engineering and Design studies aimed at producing an accurate cost for the project.

Mr Ameedi said that it's very difficult for us to determine an accurate cost for the project because Iraq lacks adequate studies which could help in estimating the project cost. When we finish the pre feed and feed studies it will be easy to set a cost accordingly and this is the best solution for us and companies to overcome the cost issue.

"Iraq to resume oilfield water injection talks", 11/09/2011, online at:
http://www.steelguru.com/middle_east_news/Iraq_to_resume_oilfield_water_injection_talks/224548.html

❖ Dutch firms want Iraq water projects

Doing business in Iraq? The time seems ripe now that normality is returning to more and more places there. A Dutch trade mission left on Saturday to promote one of Holland's best-known export products: water management.

“Iraq may not be the first country an entrepreneur would think of doing business with,” says Dutch Finance Minister Maxime Verhagen. “The country does, however, have the potential to become a big economic player in the Middle East. And for Dutch companies there are opportunities in many fields and areas. Water is just one of them.”

Test case

The Dutch trade mission will no doubt serve as a test case for Mr Verhagen's statement. More importantly, it will be able to gauge Iraq's current investment climate. Experts think Iraq offers many opportunities in the field of water management. There is a big demand for the construction of new dams and dykes, the construction and maintenance of irrigation channels, water purification and other forms of water management.

The mission is being led by the new Dutch ambassador to Iraq, Jeroen Roodenburg, and includes representatives of seven Dutch companies that specialise in water management.

Exploring the market

After landing in Baghdad, the delegation will spend three days in Basra, in the south of the country. Some delegates will stay on to explore the market on their own and establish contacts with the central government regarding future projects.

Sander Pielkenrood, the head of family firm that specialises in water treatment, says the trade mission comes at a good time.

“Due to the international crisis the markets in Western Europe and the United States are under a lot of pressure. So it is a good idea to explore the possibilities in new, emerging markets such as Iraq. In addition, competition in Iraqi market is fairly limited still, which makes it easier to secure contracts.”

Investment climate

Another company that is part of the mission is Libitco, which makes water treatment plants and synthetic pipes for oil, gas and water transportation. The head of the company, Guus van Bilsen, sees plenty of opportunities for Dutch companies in Iraq, which he says is keen to take steps to take charge of its own development.

“Iraq is a country with an enormous investment climate, both in the oil and gas industry as in everything related to drinking water and water purification. Plus there are lots of opportunities in farming. Currently the country has to import a great deal of food, especially from Turkey and Syria, and now Iraq is eager to produce its own food.”

Not a school trip

The situation in Iraq may be more stable but the mission is not a school trip either. There is still a lot of violence, and though it's not aimed at foreigners, the Dutch government discourages all non-essential travel to Iraq. The mission's delegates are all travelling at their own peril without any special security measures.

“We are not being escorted by cars with men carrying heavy machine guns. It's a low-profile mission. We are not driving through the town with flashing lights. We'll be picked up at the airport and spend the rest of the day visiting several official bodies.”

Networking

There are no expectations among the mission of actually signing any contracts. Sander Pielkenrood says the mission will have succeeded if it allows him just to chart the Iraqi market. The mission's main aim is to gather information and make contacts.

He more than anyone knows how long it takes before a contract is signed because his company is already involved in a project in Iraq. “In our line of work between the offer and the actual contract often a year goes by, and sometimes it takes two years or even longer. They are all unique projects, tailored to the client's needs. So striking a deal overnight—no that's very likely.”

“Dutch firms want Iraq water projects”, 17/09/2011, online at: <http://www.rnw.nl/english/article/dutch-firms-want-iraq-water-projects>

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❖ Iranian Lawmakers Propose Plan to Save Lake Oroumیه

Nader Ghazipour, one of the signatories to the proposal, told the Khaneh Mellat website: "According to this plan, the administration is charged with finding the best solutions, up to three years from when the bill is approved, to save and revive Lake Oroumیه and return it to its previous condition."

He said the bill will be presented in Parliament this coming Sunday and expressed hope that it will be approved.

An earlier plan to save the lake was presented to Parliament in July but it was voted down. Ghazipour said, however, that MPs were only voting against the "financial resources" proposed for that plan; he said: "The MPs did not have anything against principle of the proposal."

After Parliament rejected that first plan, large demonstrations were held in Tabriz and Oroumیه, and many protesters were arrested.

The MP representing Oroumیه went on to say: "The problem with this lake is not the fault of the government, and 90 percent of it is due to declining precipitation levels. However, the government could have remedied it by diverting water from other regions."

Alireza Mahjoub, another signatory to the plan, says the new proposal aims to "keep the situation at Lake Oroumیه from becoming more critical."

He added that the plan allows the government to transfer water to Lake Oroumیه from "the many water resources available in the country."

Last week, the head of Iran's Organization for the Protection of the Environment announced the approval of a \$900-million budget to remedy the drying of Lake Oroumیه.

Iran's largest lake has long been faced with falling water levels, and large sections of it have already dried out.

Iranian Lawmakers Propose Plan to Save Lake Oroumیه, 12/09/2011, online at:
<http://www.payvand.com/news/11/sep/1115.html>

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❖ INIC Participates in Iran Int'l Water, Wastewater Exhibit (Watex 2011)

TEHRAN (FNA)- Iran Nanotechnology Initiative Council participated in the 7th Iran International Water and Waste Water Exhibition which was held in Tehran's Permanent International Fairground from September 5 to 8, 2011.

Expanding the applications of nanotechnology in water and wastewater industry, facilitating the presentation of products to the market and exchanging technical knowledge between the Iranian and foreign researchers in the field of nanotechnology were among the Iran Nanotechnology Initiative Council's objectives for taking part in the exhibition. By participating in the Seventh Iran International Water and Wastewater Exhibition, Iran Nanotechnology Initiative Council and the companies Vahid Industrial Group and "Water Treatment Alchemists" introduced the applications of nanotechnology in water and wastewater industry, including the use of nanoparticles in water purification, nanofiltration, and also the nanomembranes that are able to adsorb heavy metals. In addition to introducing the applications of nanotechnology in water and wastewater industry, Iran Nanotechnology Initiative Council presented two plans for the provision of drinking water for the city of Molasani by using nanofilters and the establishment and implementation of a pilot plant for the nanofiltration of Karoon River water in Southern Iran. Participation in the Seventh Iran International Water and Wastewater Exhibition was the sixth participation of Iran Nanotechnology Initiative Council in specialized exhibitions in 2011. Among other specialized exhibitions in which Iran Nanotechnology Initiative Council took part in the present year, mention can be made of the Eleventh International Exhibition of Building Construction, the Third International Exhibition of Energy Saving and Urban Electronic Management and the Nineteenth International Exhibition of Ceramics and Porcelain.

INIC Participates in Iran Int'l Water, Wastewater Exhibit (Watex 2011), 13/09/2011, online at: http://www.waterworld.com/index/display/news_display/1499354710.html

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❖ All the world is made up of 3,600 water treaties

Recently [Mamata Banerjee](#) was in news when she pulled out of the Prime Minister's delegation to Dhaka. The West Bengal chief minister opposed the proposed Teesta water sharing treaty under which India would guarantee 33,000 cusecs of the river's water to Bangladesh. Bengal was supposed to give up 25,000 cusecs and the additional 8,000 cusecs were to come from Sikkim. She was however not convinced by this formula as there is no water sharing agreement between West Bengal and Sikkim and a lower riparian state can always be exploited by the one which is higher in the river system. There is also a feeling in some quarters that the 1996 Ganga Water Treaty between India and [Bangladesh](#) guaranteed water to Bangladesh at West Bengal's expense. In the absence of any inter-state water sharing treaty, the state could not prevent Uttar Pradesh and Bihar from overdrawing water, while Bangladesh was getting its assured share.

Why is water sharing such a big issue?

Water is a major commercial resource finding use in not just in fishing and agriculture, but also in manufacturing and recreation and its shortage can cripple any economy. People who don't have easy access to water have to spend a substantial time in fetching water for daily use. This time could be used in other economic activities if water was easily available. It should be obvious, therefore, why water sharing treaties evoke such strong emotions. Between 1964 and 1967, [Israel](#) and its Arab neighbours were involved in series of armed conflicts over the sharing of the waters of the [Jordan](#) river. The UN Food and Agriculture Organization identifies over 3,600 international treaties related to sharing of water. Dating back to AD 805, these treaties deal with navigational issues, flood management, hydropower projects, fishing rights and water sharing arrangements.

Can a country revoke a water sharing agreement during war?

Even during war, water sharing treaties are respected by their signatories. For instance, India and [Pakistan](#) are parties to the Indus Water Treaty brokered by the [World Bank](#). Under the treaty, the waters of the eastern rivers of the Indus system — the Sutlej, Beas and Ravi are allocated to India, while it is under obligation to let the waters of the western rivers — Indus, Jhelum and Chenab — flow to Pakistan. It can, however, use a limited amount of water of the western rivers for domestic and agricultural purposes. It can also construct hydro-electric plants if they don't store more water than the limit specified in the treaty. Even after 50 years, the treaty is so far respected by both countries. India has never revoked the treaty even during the times of war between the two countries.

With which other countries does India have such treaties?

India has signed several treaties and Memorandums of Understanding (MoU) with Nepal. Most of them are aimed at developing multipurpose projects. Both countries are trying to exploit the Mahakali, Burhi Gandaki and other rivers for power generation and irrigation purposes. Apart from this, a flood forecasting and warning system on rivers common to India and [Nepal](#), which has 42 meteorological sites in the hilly country, is operational since 1989. India has also signed MoUs with China and the Chinese side is providing hydrological information about the Brahmaputra and Sutlej, which are used in flood forecasts.

“All the world is made up of 3,600 water treaties”, 12/09/2011, online at: http://articles.timesofindia.indiatimes.com/2011-09-12/india/30144476_1_indus-water-treaty-western-rivers-teesta-water

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❖ Israel demolishes West Bank water infrastructure

UBAS (Ma'an) -- Israeli soldiers on Tuesday demolished water infrastructure in the northern West Bank, locals and Palestinian Authority security officials said.

Palestinian farmer Muwaffaq Abdul-Raziq said troops demolished his well in Khirbet Atuf, near Tubas. The well cost him 750,000 shekels (around \$202,000) to construct, he said, adding that he had obtained a license to build it.

The well was expected to pump enough water to irrigate around 700 dunums of farmland, Abdul-Raziq said. He appealed to the Palestinian Authority to protect farmers in the Jordan Valley from Israel.

Ahmad Assad, a local PA settlement affairs official, said the "aggression" against Palestinian properties and businesses was a "desperate attempt to thwart the Palestinian Authority's UN bid."

Meanwhile, Israeli forces destroyed two Palestinian wells on the outskirts of An-Nassaryia, a village northeast of Nablus, Palestinian security sources and eyewitnesses said.

The wells were recently dug by Palestinians.

Israeli rights group B'Tselem said another two wells were destroyed at the same village last week.

A spokesman for the Israeli military, which controls the use of West Bank water resources, could not immediately confirm or deny the incident.

The army regularly destroys unauthorized Palestinian construction in areas under Israel's rule.

"Israel demolishes West Bank water infrastructure", 14/09/2011, online at:
<http://www.maannews.net/eng/ViewDetails.aspx?ID=419716>

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❖ Conference told that water situation in Palestine is "catastrophic"

A conference in Jericho and the Jordan Valley has been told that the water situation in Palestine is "catastrophic". Delegates at the "Water is a Human Right" conference include Palestinian and international organisations, individuals and activists. They heard the head of the Palestinian Water Authority accuse the Israelis of destroying wells and water conduits which have supplied Palestinians since the Roman era, citing in particular three wells in Nasseriya and Jiftlik at the Jordan Valley. "This is a violation of all conventions to preserve our heritage," said Shaddad Atilli. "Where is UNESCO?". He called on European activists to let the public across the EU know about this "tragic situation".

The conference has been organised by the Popular Struggle Coordination Committee in collaboration with the Italian NGO Caravan Water.

The governor of Jericho and the Jordan Valley said that the region suffers from a shortage of artesian wells because the Israeli occupation authorities ban the restoration and digging of Palestinian wells used to irrigate crops. At one time, said the governor, the region had 170 artesian wells, but only 50 remain. "Water is a right for all of the people in the region," he said.

Speaking on behalf of Caravan Water, a spokesman said that international reports illustrate that Israel uses 80% of water sources in the occupied West Bank, leaving the Palestinians just 20%. "On average," he added, "a Palestinian consumes 70 litres of water while an Israeli uses 300 litres." The 450,000 illegal settlers use more water than the 2.3 million indigenous Palestinians. "The situation," he claimed, "is even worse in Gaza."

"Conference told that water situation in Palestine is "catastrophic"", 12/09/2011, online at:

<http://www.middleeastmonitor.org.uk/news/middle-east/2813-conference-told-that-water-situation-in-palestine-is-qcatastrophicq>

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❖ West Bank villagers' daily battle with Israel over water

Al-Amniyr villagers in the West Bank face a catch-22: if they obey the law they cannot collect water. But if they fail to water the land, they lose it anyway.

The South Hebron Hills, sweltering in 34C heat and in its second consecutive year of drought, is a landscape of brutal contrasts. There is enough [water](#) here to support lush greenhouses, big cattle sheds, even ornamental plants. It arrives in large, high-pressure lines. And there appears to be no limit to the bounty it can bring.

Cheek by jowl with the water towers and red roofs of the Israeli settlers in this area of the West Bank is a landscape of stone boulders, tents and caves. The Palestinian village of al-Amniyr looks from afar like a rubbish tip until you realise that the rubbish is people's dwellings, which have been destroyed in attacks targeting their water cisterns.

The villager Mohammed Ahmad Jabor's water cistern has been destroyed three times this year. The last time was by the settlers. The settler attacks come generally at night and where they cannot destroy water cisterns they poison them by putting chicken carcasses in them.

The second time Jabor's cistern was destroyed was by Israeli soldiers who destroyed seven tent dwellings and a sheep pen.

Jabor has gone to the Israeli courts repeatedly, which have upheld his and fellow villagers' ownership of the land, a title he claims that dates back to Ottoman times.

But the ruling of the court has had no effect either on the determination of soldiers and settlers to stop anyone or any animal living in al-Amniyr. The land has been declared as agricultural, a designation which prohibits residents from constructing structures of any kind, especially cisterns.

Constructions need permits, which are all but impossible to obtain. Where they are obtained, it is in areas such as quarries, which are impossible to exploit. And under another law, if the land is not used for three years, it reverts to [Israel](#).

So the inhabitants of al-Amniyr, at-Tuwani and the other villages that comprise Susiya, are faced with a catch-22. If they comply with the law they cannot build cisterns and collect even the rainwater. But if they fail to use their land agriculturally, they lose it anyway.

"We are without tents and without water, so how can we live here?" Jabor asks. Walking past the roots of a ripped-up olive grove – the replacement seedlings are already planted – Jabor answers his own question. A blue plastic sheet in an entrance to the rock, conceals a heavy, metal door. Beyond lies a cave, complete with a crying kitten, chickens and a metal stove for the winter. This is home for him and his seven children.

Most villagers date the start of their battle over water with Israel to 1982, when Ariel Sharon, then minister of defence, transferred all the West Bank water systems to Mekorot, the Israeli national water company for the nominal price of one shekel.

The Oslo accords created a Joint Water Management Committee, which grants Israel a veto over water resource and infrastructure in the West Bank. The committee issued a joint declaration in 2001 "for keeping water infrastructure out of the cycle of violence".

[The Emergency Water, Sanitation and Hygiene group \(EWASH\)](#), a multinational consortium of NGOs funded by the European commission, accuses Israel of breaking this declaration, although there is a long list of other obligations under humanitarian law as an occupying power. In the past two years, it has logged the destruction of 100 water, sanitation and hygiene structures, 44 cisterns, 20 toilets and sinks, 28 wells. This year alone, 20 cisterns have been destroyed. Most of this is happening in Area C, which is under full Israeli military control.

The effect of the water shortage on the Palestinian population is not disputed. The average use of water by Palestinians is 50 litres a person a day for domestic purposes, one-fourth of the Israeli use. Rates of diarrhoea are high, particularly among children in herder communities. One survey found that 44% of children between six months and five years had diarrhoea in the two weeks before. Bodies such as the World Bank, UNRWA, Unicef and the World Food Programme have all carried out studies on it.

Where Palestinian villages are permitted, villagers complain of weak water pressure or the high price of tankered water. In Susiya it comes in at 35 shekels a cubic metre.

The Palestinian Water Authority issued a statement in May this year condemning the demolition of cisterns as a violation of numerous bilateral agreements and declarations between Israel and the PLO as well as between Israel and the Palestinian Authority.

Israel disputes it is responsible for the unequal distribution of water in the West Bank, and accuses Palestinians of letting untreated sewage flow into the water table and of lowering the level of table with unauthorised wells. It said that under Oslo accords water resources were divided between Israel and the PWA, each side was held responsible for the water it consumes and a bilateral committee was set up as a mechanism to monitor the use of water and approve new projects. The last time the bilateral committee met 65 new water projects were approved, mostly for the Palestinians.

The Israeli embassy in London said: "Unfortunately there is a limited supply of water in the region. This is the fairest system for allocation through a bilateral committee." He called reports about Israeli settlers poisoning the water supply of Palestinians "unacceptable behaviour" and was by no means government policy. Asked about the use of water by Israeli settlers, he said that as they paid for it, it was up to each individual how they used it.

“West Bank villagers' daily battle with Israel over water”, David Hearst, 14/09/2011, online at: <http://www.guardian.co.uk/environment/2011/sep/14/west-bank-villagers-battle-water>

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❖ **Environment: Shared resources, sole responsibility**

National Infrastructures Minister Uzi Landau talks with the 'Post' about cooperation with the PA on water and sewage management.

As Israel enters a new year, with significant renewable energy allocations signed in July and natural gas development churning at highspeed, The Jerusalem Post sat down on Wednesday with National Infrastructures Minister Dr. Uzi Landau, who is a Massachusetts Institute of Technology Ph.D. grad with interests in maximizing and diversifying the country's water and energy usage. Meanwhile, with the approach of the Palestinian bid in the United Nations for statehood, Landau spoke in detail about some of the most pressing infrastructural issues facing the areas of Judea and Samaria.

Before we get into questions, any new developments in your office that we wouldn't already know about?

[On Tuesday] we visited the area of Binyamin and of Samaria, meeting with representatives of the communities that live there – starting with Ma'aleh Adumim, its mayor and his staff. Basically, together with the staff of Mekorot [the National Water Company] and of Israel's water authority we simply went to observe first-hand what the problems are.

What are the biggest problems?

The biggest problem is that while the population there has been increasing steadily over the past few years, , the water infrastructure has basically been basically frozen.

How might you best take care of these problems?

What we had were plans developed 16 years ago, in 1995, with a number of pipelines connecting the coastal plains of Israel with the communities of Judea and Samaria, but the population has more than tripled since then. Many industries were developed – there are industrial areas that weren't there before and many sewage problems have developed since then. The agricultural sector that developed dramatically... They should have the same rights as every other citizen of Israel. We have now developed a master plan that will have a horizon of 20 years and beyond.

A master plan that will include the Palestinians?

Including everyone... Their management of water is of utmost importance. Because if you mismanage the water... you might damage the water aquifers with consequences for many, many years to come... The Palestinians are also causing problems with a pirate type of drilling and overuse of water... [On Tuesday] three major illegal drillings that they developed were shut off.

Has there been any improvement?

We are still not fully satisfied, but the enforcement by the police and the Civil Administration is getting much better... The second major problem with the Palestinians is that they simply do not treat their water – they don't clean their water. They expect us to provide them with fresh water.

What's the status of their existing treatment plants?

They have built two treatment plants.

One is in Al-Bir and sometimes it works and sometimes it doesn't. There's another one that they built in Hebron, which simply doesn't function and has an excess amount of dust in the water from the quarries. We have in a number of cases built our own water purifying installations to take care of the Palestinians' polluted water. One is in Shoket, which is supposed to take care of Hebron's untreated water and the other is in Yad Chana, which takes care of the sewage coming out of the city of Nablus.

Through the riverbeds they are polluting the landscape and infiltrating the underground water aquifer, which is a major source of drinking water for the Palestinians and for the Israeli population in the area... We have approached them and made clear to them in the past couple of years that no new major projects will be approved there unless they start to show us how they treat the sewage.

We are unprepared to provide them with fresh water and get sewage in return.

Might a treatment plant be build in the new city of Rawabi?

I'm not aware of that and we shall not join in, in terms of providing all the water needed, if they will not take care of their sewage.

This is a major problem. They claim that this land is theirs, that this is their homeland, but... they don't treat the sewage.

As it stands now, would the Palestinians be capable of sustaining an independent state, energy- and water-wise?

I wish that we would see there not a failed authority, but rather people who can run their businesses properly. It is in our interests, for example, that in the Gaza region that they would develop their own electricity plants, their own water desalination plant, their own purification plant... Until now their entire behavior is that of leaning on somebody else. They don't act or behave as an independent,

responsible, skillful, professional authority.

What might be included in your ministry's master plan?

With respect to the Palestinians, we know the amounts of water allocated to them. We'll of course have to guarantee that, but we will also have to look into how our communities are developing over there. Our master plan will also have to take care of all of the needs, all the infrastructure that will need to be developed just in case the Jordanians would be interested in selling them water, or the Palestinians would be interested in us selling them more water if they don't find their own ways to deal with it.

Switching gears – as Better Place prepares to launch its electric car network, are you at all worried that the electricity will be coming from the grid, rather than from renewable sources?

First of all, it'll be much cleaner than the direct use of gasoline or than the combustion engines of the cars. There's no doubt about that. The second thing is – your comment is correct from the point of view that you need energy in order to produce electricity. Some energy sources are much cleaner [than others]. We are in Israel disconnecting ourselves almost totally from heavy crude oil, and this is to a greater and greater extent filtered – there are methods being used to absorb the pollutants. Third, we are in the process of reshaping and reconfiguring some of our old coal power plants to become dual-use, to natural gas backed by coal. And of course much more of our electricity will be produced by natural gas. Already 40 percent of it is being produced by natural gas... In the long run, not in the immediate run, the recharging of the cars will also be done under a controlled manner in order to maximize the efficient use energy.

When will the Tamar natural gas field be online?

If everything goes as planned, then by the first half of 2013 Tamar will already be connected to the natural gas network. What we have is a gap between the dwindling of Yam Tethys and starting the operation of Tamar.

[I understand] a liquified natural gas (LNG) buoy was just approved to help bridge that gap?

This was approved to take place in Hadera.

They still have to finish the detailed plans, but this was a milestone not only in terms of the importance of the decision, but that it was done in quite a speedy manner... We should still be able to have the buoy by last quarter of 2012 if everything goes fine.

Will we continue to use LNG after Tamar is online?

We'll need that as the backup – and it cannot be the only backup. We need to draw up a system that has much more redundancy.

Might we export natural gas?

If it were to be exported, most probably it would be in LNG form... Potentially the Palestinians could buy it, the Jordanians could buy it if they so choose and so could some European countries such as those in the Balkans or Cyprus. The natural gas market is developing at quite a dramatic speed and as much as we are tied to ships and pipelines today, perhaps in the future we might be able to also do a “spot” type of a market – when it's purchased from a ship on the high seas.

Is there any danger of further Lebanese threats to Israeli natural gas, or any fear of future threats from Turkey (as Turkey has been on Cyprus's back)?

No one is claiming – not even the Lebanese – that the Leviathan or the Tamar natural gas fields are within foreign waters.

Until now the Turks said something about the natural gas in Cyprus. It is difficult for me to see anything developing between us and Cyprus or Greece, for example, Turkey challenging the European Union. At least the Cypriot ambassador didn't pay attention to that at all. He brushed it off.

Is natural gas from Egypt now considered unreliable?

We saw the natural gas supply agreement with Egypt as the most important economic agreement we have with them. We wish, of course, to be able to see Egypt as be a source we could rely upon, but at the same time we are also preparing ourselves for scenarios in which we will have to provide for our needs without foreign pipelines... Of course our purpose is to make Israel energetically independent, but there is still a long way to go.

This means diversifying our resources rather than having one source of energy, .

How might we do that?

It's gas, it's other things... Perhaps in the [20]20s we may also have a nuclear power plant here.

But what about the Nuclear Non-Proliferation Treaty?

Well, there are countries that haven't signed yet, such as India. We think we are no different... We are an energy island in Israel.

Earthquake or natural disaster?

The problem in Japan was not the earthquake – it was the tsunami, which simply shows you that precautions and all necessary engineering steps can be taken to avoid that or to provide an answer to it. A tsunami can also take place here, but we don't have to put it just on the seashore. We can provide answers to these things, and obviously it will be a major challenge for all those who design it. If you look at France, for example, they have tens of tens of tens of nuclear power plants, which provide them credible and economic sources of energy, and there have been no major problems in the operation of the system for many, many decades.

Are there any plans for hybrid electricgas buses?

At the moment I see greater a chance of buses operating with compressed natural gas (CNG); this, too, has to be tested. I've mentioned many industries that might be developed from natural gas and this could be one of them.

As far as the renewable energy allocations passed in July, have people been jumping to get permits?

There is already a long list, I was told, of companies who have filed requests for solar and also wind power... Some of it is outside of the responsibility of this ministry, which shows you how much this area of electricity is divided... This makes it impossible to run it in a very effective manner, in such a highly important sector that needs to provide a secure, reliable, economic, sustainable source of energy to the people. Yet at the same time, when it comes to the government decision, this was a major victory, a major achievement by our ministry... But again, the major problem is that you have too many players here, which confuses the customer and also makes the ability of this sector to function an increasing problem.

What about the people of Judea and Samaria, who are supposed to receive 10% of the allocations?

These people were deprived of their human rights for a number of years in this regard and in regard to water, and I'm really glad that we have equalized their position now to what the other citizens of Israel enjoy.

“Environment: Shared resources, sole responsibility”, Sharon Udasin, 16/09/2011, online at: <http://www.jpost.com/Features/FrontLines/Article.aspx?id=238151>

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❖ **Palmahim plant seeks 45m. cubic meter desalination increase**

Proposal would allow desalinated water to account for 85 percent of domestic consumption by the year 2013.

Talkbacks (6)

The Palmahim desalination plant has submitted a proposal to the Interministerial Tenders Committee for Water Desalination to increase its output by 45 million cubic meters per year.

That would allow desalinated water to account for 85 percent of domestic consumption by the year 2013, the Finance Ministry announced in a statement on Wednesday.

Palmahim's proposal was the sole response to a Tenders Committee call for the existing desalination facilities – Palmahim, Hadera and Ashkelon – to submit plans for expanded operation, the statement said. Having reviewed the proposal, the Tenders Committee will next check its compliance with legal, financial and engineering regulations, according to the ministry.

Under the proposal, Palmahim would increase its output to 90 million cubic meters per year in 2013. Tallying this addition with the other existing facilities as well as plants currently being developed in Soreq and Ashdod – slated to be complete in 2013 – the country would have a total supply of 587 million cubic meters of desalinated water annually by the end of that year, accounting for 85% of domestic water consumption and 45% of freshwater consumption, the ministry said.

The long-term price of the water will be established by the Tenders Committee after the compliance checks are complete and calculations of added operational costs of the expansion are determined, but for now and throughout the expansion will remain NIS 2.09 per cubic meter of water, similar to the price fixed for Soreq and significantly less than that of the other plants, according to the ministry. Ashkelon and Hadera have decided not to submit proposals for expansion, as the plants have deemed the water prices too low, the statement said.

“Palmahim plant seeks 45m. cubic meter desalination increase”, Jerusalem Post, 13/09/2011, online at: <http://mideastenvironment.apps01.yorku.ca/?p=3398>

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❖ Power + Water: Middle East to Bring Energy Sector Together With Desalination Industry

Power and water are inextricably linked in the rapidly growing Middle East. An exhibit hopes to green up both

Desalination and water treatment have seen [massive growth in the MENA region](#), which has now emerged as the largest market in the world. The region will have to build approximately three million cubic meters per day of desalination capacity every year [to meet the mounting water demand](#), according to a report from [Ventures Middle East](#).

Needed investment in desalination and water treatment will total a staggering \$20 billion over the next four years. Massive amounts of energy are needed to power desalination, and [water can potentially host massive renewable energy plants](#) too. The two could be synergistic and could release the potential for a cleaner future.

So how much of this new water infrastructure could be run on clean renewable energy? Mark your calendars: **October 16th to 18th**, to attend the [Power + Water Middle East](#) exhibition to find out.

“The renewable energy sector in particular is seen as an area of immense growth in the region” says the report from [Ventures Middle East](#), “particularly as global warming and spiraling oil prices have forced world leaders to plan ahead for more sustainable forms of energy production that includes nuclear, solar, wind and biomass.”

To bring together these two groups with intersecting interests, next month the [Power + Water Middle East](#) exhibition will take place at the Abu Dhabi National Exhibition Centre.

Ventures Middle East released the latest figures ahead of the second annual Power + Water Leaders’ Forum, which will run at the same time as the exhibit. The simultaneous growth in water and energy use is skyrocketing in the region.

Their report notes that in the GCC, as economies diversify and population grows at a steady pace, energy consumption has increased by 91 per cent, from 160.4 billion kilowatts per hour in 2000 to 306.5 billion in 2011. To supply this burgeoning growth, electricity production across the six States has increased by 90 per cent in the last ten years, from 176.1 billion kilowatts per hour in 2000 to 335.3 billion in 2011.

And, increasingly, renewable energy is being considered to replace the finite fossil fuels that served to grow the region in the first place. MENA developing countries are overtaking the developed ones for the first time, with 104 per cent growth in projects driven by new renewable energy mandates like clean energy regulations, government subsidies and economic stimulus.

“Power + Water: Middle East to Bring Energy Sector Together With Desalination Industry”, susan Kraemer, 15/09/2011, online at: <http://www.greenprophet.com/2011/09/power-water-middle-east-energy-desalination/>

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❖ **Report: Water conservation touted over desalination**

Groups says conservation is more effective at job creation; Landau stresses importance of diversifying water-saving methods.

Regional green group Friends of the Earth Middle East (FoEME) attests that an increased focus on water conservation as opposed to streamlining efforts into expanding desalination facilities will be a more effective way to create green jobs and an exportable domestic market, according to an August report released earlier this week.

The report critiques some measures of the government's response to the current water shortage, arguing that while increasing the desalination capacity is "sometimes necessary," focusing on water-saving is overall a more effective strategy.

Expanding desalination efforts as per current government plans would free up an additional 430 million cubic meters of water per year and would create approximately 1,260 green jobs per year (2.84 jobs per million cubic meter), with 25 percent of those jobs skilled, according to FoEME report calculations. Water conservation would meanwhile make available only 316 million cubic meters of water per year but would create approximately 5,200 green jobs (16.5 jobs per million cubic meter), 63% of which would be skilled work, the report said.

"Desalination is a highly capital intensive method of producing water with much lower job creation potential than demand side approaches," wrote the authors – Yedidya Sinclair, Efrath Silver, Gidon Bromberg and Youval Arbel.

Building upon the 2011 Green Economy Initiative of the United Nations Environment Program, the report defines green water jobs as long and short-term "jobs that reduce water consumption and overall enhance the sustainable growth of the water sector, avoiding water exploitation and pollution or any other kind of environmental pollution, and in addition offer adequate wages and job security (social benefits) to employees."

While acknowledging that increased desalination efforts could in fact fill in the gaps to solve Israel's water problems by 2013, the report warned that desalination also generates air pollution from energy consumption and requires use of large chunks of coastal land, damaging the local marine environments.

Therefore, in addition to maintaining current desalination projects, the authors recommended what they saw as more environmentally friendly and labor intensive measures – like reducing water loss from leakages, conducting rooftop rainwater collection, changing the types of plants used in gardens, raising prices in the agricultural sector, using grey water for both irrigation and toilets and raising awareness about water conservation.

"The 2009 water crisis in Israel prompted the introduction of water saving policies to reduce demand.

These measures are to be applauded," the report said. "However, it is far from clear whether they will become

permanent features of Israel’s water economy, or whether they will be relaxed when more desalination capacity comes on line.”

Indeed, the report had significant praise for Israel’s accomplishments in many of these water conservation measures, which began being heavily instituted in 2009 amid the current water crisis – such as installing water-saving devices, reducing leakages and waste in water systems and allocating water for city parks, the authors wrote.

“These initiatives are promising and commendable steps but are not yet widespread or permanent,” the authors wrote.

Once a steady domestic market in water conservation and efficient water use is ensured, then steadier exports of the ideas and technologies can occur, according to the report.

One way in which skilled green job opportunities and innovation can arise in this sector would be to “replace water intensive flora with more indigenous, water efficient species” in community gardens, whose irrigation currently accounts for 20% of all domestic and municipal water consumption, the report said. This could achieve a 50% reduction in water needs for the gardens, while creating sophisticated work in the process, the authors added. Legalizing grey water or even going so far as to oblige homes to use grey water would similarly create many types of jobs across the board, according to the report.

While he had not yet seen the report, National Infrastructures Minister Uzi Landau told *The Jerusalem Post* during an interview on Wednesday that although he feels expanding desalination efforts is still important, the government is also constantly diversifying its methods of water conservation.

“Obviously desalination is just one major thrust of providing water to our country and I would say to our region too,” Landau said. “Of course we’ll have to look into methods of conservation of water – desalination is not the only answer – and proper economic use of water should also be part of our developing subculture. We should provide those conditions in Israel for a modern country in which one could use as much water as he needs – that the country should be prepared to provide to the individual as much water as he needs, and he would pay the full price for it. At the same time, the individual should behave in a manner that he would use just the amount of water that a responsible person needs to have.”

“Report: Water conservation touted over desalination”, Sharon Duasin, 15/09/2011, online at: <http://www.jpost.com/Sci-Tech/Article.aspx?id=237997>

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❖ The Global Water Crisis

On September 16, 2011, water experts will gather in New York for a conference at the United Nations entitled the "International Water Forum", the focus of which will be the alarming global water predicament.

The mood at the U.N. will be somber. The water supply and sanitation situation around the world can only be described as abysmal. Currently, 1.5 million children under 5 die of preventable water related diseases every year (4,000 every day), around 900 million people (1 in 6) have no access to safe drinking water, and 2.6 billion (2 in 6) lack adequate sanitation. In the developing world, 90% of wastewater is dumped untreated into water bodies, spreading contamination and disease and spawning "dead zones". The World Bank reports that 80 countries are suffering water shortages. One has to wonder whether the horror occurring in the Horn of Africa is a forerunner of things to come in other parts of the world.

This already desperate situation will only worsen with climate change and population growth. Climate change is likely to accelerate desertification (thus reducing arable land in certain areas), alter precipitation patterns, generate extreme weather events, and produce harsher and longer drought cycles. The U.N. has estimated that the world's population will grow by an additional 3 billion people by 2050. Thus, population growth and climate change are on a cataclysmic collision course. Just how enough water can be found to support this number of people is, next to addressing climate change itself, the most fundamental issue facing humanity.

Additionally, water inadequacy poses a national security issue for the United States. Around the world, 215 major rivers and 300 groundwater aquifers are shared by two or more countries. Growing shortages will lead to conflicts into which the U.S. will be dragged. Competing water claims in the Middle East, and escalating friction between India and Pakistan over water diversions, are particularly worrying in this regard.

With all this, one would think that developed countries would have devoted greater resources to tackle water insufficiency and deficient sanitation at their source, rather than executing costly reactive rescue missions to deal with the epidemics, famines, refugee crises, and mass exoduses that are their consequences. And yet, the work to effectuate solutions (such as improved irrigation, integrated water management, wastewater reuse, better sanitation practices, more effective public-private partnerships, trans-boundary cooperation, and enhanced public education) have so far proven unequal to this colossal challenge.

In 2000, the United Nations adopted 18 objectives called the Millennium Development Goals ("MGDs"). Target 10 was the reduction of the number of people living without water and sanitation by half by 2015.

In releasing the recent 2011 Millennium Development Goals Report, UN Secretary General Ban Ki Moon described the progress as "uneven". Regarding Target 10, the Report was likewise mixed, stating that while the drinking water goal was on track, "more than 1 in 10 people may still be without access in 2015". Despite advances, an estimated 884 million people still rely on unimproved water sources for drinking (as of 2008). As disturbing as that may be, sanitation presents an even

bleaker picture: "The world is far from meeting the sanitation target." The Report adds: "... some 2.6 billion people globally were not using an improved form of sanitation in 2008. That year, an estimated 1.1 billion people did not use any facility at all and practiced open defecation...". The Report finds some encouragement in the fact that frequent sanitation conferences are being held "to ensure that sanitation... receives the attention it deserves."

Indeed, keeping attention focused on the global water crisis with the hope of spurring additional action is the very goal of the International Water Forum.

And Los Angeles is part of the intended audience and can be a part of the needed solution. While we will never experience the misery afflicting much of the rest of the world, we do live in a semi-arid region and are heavily reliant on imported water resources, which may not expand to meet our future needs. And, although we are enjoying a respite at the moment, we will have more intense droughts and shortages in the future. We simply must make the necessary investments today to secure new water resources. That means implementing strategies such as additional conservation, infrastructure repair, improved building standards, wastewater recycling, groundwater remediation, rainfall capture, and underground storage.

By taking these steps, we will not only better prepare for our next water crisis here at home, but we will gain additional insight and expertise in how to most efficiently produce "new" water. Sharing that knowledge with those in the world less fortunate than us may be the greatest contribution Los Angeles can make to alleviating the global water crisis.

"The Global Water Crisis", David Nahai& Jim Thebaut, 15/09/2011, online at: http://www.huffingtonpost.com/h-david-nahai/the-global-water-crisis_b_964576.html

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❖ The Jordan River: Declining, Disappearing, Endangered [Revolve]

On November 20, 1847, Commander William F. Lynch sailed out of the Brooklyn Navy Yard with a burly crew of 14 men on the first U.S. Expedition to the Jordan River and the Dead Sea. Equipped with two boats, Lynch and his crew sailed across the Atlantic and the Mediterranean to Acre in current-day Israel. From here they loaded their boats and equipment onto wooden carriages and transported them to the Sea of Galilee. They spent several months sailing down the Jordan River from its sources at the foot of Mt. Hermon to the shores of the Dead Sea in the south. Published in 1853, Lynch’s travel diary remains one of the most vivid accounts of the Jordan River in its natural state.

Lynch describes the river as “deep, narrow, and impetuous... It curved and twisted north, south, east and west, turning, in the short space of half an hour, to every quarter of the compass, seeming as if desirous to prolong its luxuriant meanderings in the calm and silent valley, and reluctant to pour its sweet and sacred waters into the accursed bosom of the bitter sea.”

Today, barely a drop of water reaches that bitter sea. Salty and surreal, the Dead Sea is the lowest place on earth, and the final reservoir for water in the Jordan River Basin. According to research by Friends of the Earth Middle East (FoEME), a regional NGO, Israel, Jordan and Syria divert more than 98 percent of the Jordan River for agricultural and domestic purposes. The result is that the flow of the Lower Jordan River has declined from its historic level of around 1.3 billion cubic meters per year in the 1930s to a mere 20-30 million cubic meters in 2009. This has in turn led to a 33-meter drop in the level of the Dead Sea, reducing its historic surface area by a third.

Gidon Bromberg, FoEME’s Israeli director, fears that “the Jordan River will run dry by the end of 2011” if the five countries of the Jordan River Basin—Syria, Lebanon, Jordan, Israel and Palestine – do not take immediate action.

“It is a dream to restore the environmental flow of the Jordan River, but we don’t have water,” said Abraham Tenne, the head of desalination policy at the Israeli Water Authority. “Each and every drop is used.” In order to restore the river, he said, “we will have to negotiate”.

However, ongoing regional conflict has stymied all diplomatic efforts to negotiate an equitable water-sharing agreement between the five countries of the Jordan River, let alone a solution to the environmental tragedy unfolding in the Jordan Valley.

Israel, Syria and Lebanon are still formally in a state of war. Israel has maintained unilateral control over the water resources in the Golan Heights and the West Bank since the conclusion of the Six-Day War in 1967. Jordanian citizens must secure permits from Jordanian security services in order to access the river, while Palestinians have not had access to it since 1967 when Israel declared the west bank of the Jordan River a closed military zone.

“The Jordan River: Declining, Disappearing”, Endangered [Revolve], Posted by [Itay Greenspan](#) , 13/09/2011, online at: <http://mideastenvironment.apps01.yorku.ca/?p=3383>

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❖ The efficiency paradox

IBM's David Smith made a noble case for harnessing our ingenuity to help conserve the Great Lakes ([Crossroads, Aug. 28](#)). But he misses a catch. Without the right political foundation, the very water efficient technology he calls for may drive us to use more water and energy.

This paradox emerged in 1865, when industrial England ruled the world. But as "peak coal" grew scarce, the country feared it would deplete its own lifeblood. Boosters dismissed the need for conservation and pointed to high-tech steam engines, which improved efficiency, requiring less coal to generate more energy.

Enter 29-year-old economist William Stanley Jevons. His studies measured the effects of supply and demand and found that widespread access to efficiency technology would actually speed up depletion as more people used more machines to burn more coal:

"It is wholly a confusion of ideas to suppose that the economical use of fuel is equivalent to a diminished consumption. The very contrary is the truth."

Over 146 years, coal's alternatives - wind, oil, gas, nuclear, solar, hydro, geothermal - all stepped in to fuel growth. But his logic remained incontrovertible. What's more, the steam engine burned up another element, which in 1865 England seemed negligible but is today both precious and scarce.

And unlike coal, water has no substitute.

To counter global water scarcity, governments and industry once again tout and subsidize efficiency technology. As Smith noted, his own company (IBM) awarded his own city (Milwaukee) with a Smarter Cities grant to harness water technologies. Likewise, the U.S. Environmental Protection Agency has set up a WaterSense partnership that designates and labels certain qualifying technologies that claim to "protect the future of our nation's water supply by promoting water efficiency and enhancing the market for water-efficient products, programs and practices."

So, by itself does water-efficient technology work? Can new widgets alone make up the projected 40% shortfall between global demand and supply in the next 19 years?

The ghost of Jevons moans: Don't bet on it.

The EPA claims that WaterSense technology helped consumers save a cumulative 46 billion gallons of water; Smith claims Ford Motor Co. used 26.8% less water. I don't doubt those numbers. But I do ask: What happened to all that saved water? Did it stay in rivers, lakes or aquifers? Alas, there is scant evidence that local conservation translates into an overall reduction of water use, consumption and demand.

In fact, empirical studies suggest that - as with Jevons' energy - water-efficient technologies may reduce supply via lower costs and increased demand from added opportunities and incentives to divert, pump and use even more water.

My dual flush toilet means my daughter takes longer showers. My uprooted lawn encourages my neighbor to install a back yard pool. Our water-efficient neighborhood lets the larger city approve a sprawling new development. Companies reduce the amounts of water per unit throughout the supply chain, and that helps them to sell more water-embedded products. It's likely the EPA offset demand for 46 billion gallons by making it cheaper or free to others, while "free riders" guzzled up the savings by Ford.

Likewise, from Texas cotton fields to Israeli orchards, technology gains do not return flows to the Rio Grande, Jordan River, West Bank aquifer or water-restricted Palestinians. Rather, efficiencies spread more new irrigation of water-intense crops into marginal lands to the exclusion of competing natural and human communities.

Understandably, social advocates and environmentalists resist water-efficient technology that undermines their goals.

Such a perverse and undesired outcome defines a key paradox of water: As long as we "rent" our resource from a natural monopoly, water-saving devices will increase systemic consumption. Water that you and I frugally conserve is lost through new and collective augmented demand.

The fastest way to resolve this paradox is through a new (yet timeless) system of clear dominion over water, in what might best be called "H2Ownership."

If all end users sharing the same basin or water system had a proportional stake in the outcome - based on, say, our historical use - then we would graduate from "ratepayers" who see water as a liability into "shareholders" who see water as an asset. Then, whatever we save from our share we can take out of the equation, to be later sold at a premium to higher users or donated to charity or restored directly to nature.

From the Kalahari to Oman to Indonesia, variations of this system appear where people compete to conserve, and nature keeps its integrity. Under a scaled-up digital version of this virtuous cycle, urban efficiency gains could be locked in and improved on, helping us to transform water scarcity into natural abundance.

"The efficiency paradox", James G. Workman, 17/09/2011, online at:
<http://www.jsonline.com/news/opinion/129995008.html>

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❖ \$12bn power, water projects ‘ongoing in ME’

A total of 17 power, water, and energy projects valued at \$11.9 billion are currently surging ahead in the Middle East, said the organisers of an upcoming power and water conference in Abu Dhabi.

The latest figures have been released by market research specialists Ventures Middle East ahead of the second edition of Power + Water Leaders’ Forum, which runs alongside the Power + Water Middle East exhibition, taking place from October 16 to 18 at Abu Dhabi National Exhibition Centre.

In the GCC, as economies diversify and population grows at a steady pace, electricity production across the six States has increased by 90 per cent in the last ten years, from 176.1 billion kilowatts per hour in 2000 to 335.3 billion in 2011.

At the same time, energy consumption has increased by 91 per cent, from 160.4 billion kilowatts per hour in 2000 to 306.5 billion in 2011, the research report said.

“Growing population, fast paced industrialisation, and investments pouring back into the construction sector are among the prime factors pushing the electricity demand in the region and thus, resulting in a promising growth for the electricity sector with huge future potential,” said Anita Mathews, exhibition director for Power + Water Middle East.

“The renewable energy sector in particular is seen as an area of immense growth in the region, particularly as global warming and spiraling oil prices have forced world leaders to plan ahead for more sustainable forms of energy production that includes nuclear, solar, wind and biomass.”

The Global Trends in Renewable Energy Investment 2011 report, produced by the United Nations Environment Programme showed that investment growth in the Middle East and Africa last year was up 104 per cent, with developing countries overtaking the developed for the first time.

The report states that new clean energy regulations, government subsidies and economic stimulus are largely responsible for the increase in investment.

Recent examples of renewable energy projects in the region include the \$150 million solar enhanced oil recovery (EOR) Project in Oman, which will begin construction early next year, and the \$150 million Fujeij Wind Farm in Jordan, slated to start construction later this year, with completion toward the end of 2013.

The water sector too has seen massive growth in the Mena region, which has now emerged as the largest in the world for desalination plants. It is estimated that the region needs to add approximately three million cubic meters per day of desalination capacity every year to meet the mounting water demand, resulting in likely investments of up to \$20 billion over the next four years.

Presented in partnership with Abu Dhabi Water and Electricity Authority (ADWEA), the Power + Water Leaders’ Forum will discuss developments in the field of ‘Developing Sustainable Business Practices’. –
TradeArabia News Service

“\$12bn power, water projects ‘ongoing in ME’”, 13/09/2011, online at:
http://www.tradearabia.com/news/OGN_204765.html

❖ **Libya, Tripoli: water supply resumed as rebels regain control of the Great Man-Made River Project**

More than a week after the taps had run dry, water supplies to the Libyan capital Tripoli [resumed](#) on 6 September [1]. This was two days after the rebels said they had taken control of the Great Man-Made River (GMMR) Project, which provides 6.5 million cubic metres of water a day to the cities of Tripoli, Benghazi, Sirte and elsewhere [2].

Senior officials of the rebels' interim government earlier accused Gaddafi loyalists of destroying water pumps and attacking water engineers trying to restart pumping stations [2]. Aid agency sources said pro-Gaddafi forces in Sirte had cut off the water supply to Tripoli [1].

A human rights group condemned the bombing by NATO on 22 July 2011 of a pipe factory in Brega, which serviced the water supply system of the GMMR Project. NATO claimed that Gaddafi forces were using the factory as a base for rocket launchers [3].

During the water outage in Tripoli, the World Food Programme (WFP) partnered with UNICEF to distribute bottled water via hundreds of mosques in the city [4]. New supplies of bottled water are partly being diverted to Misrata where a contingency stock is being set up for distribution in Bani Walid and Sirte once the fighting there stops [5].

South Korea said it was sending a team of water engineers to Libya help restore water supply services that were sabotaged by retreating Gaddafi forces [6]. Companies from South Korea and other countries including USA, Turkey, UK, Japan and Germany, had been awarded lucrative contracts to work on the Great Man-Made River Project which began in 1994 [7,8].

Called the largest civil engineering venture in the world, the GMMR Project was one of Gaddafi's most prized projects attracting international attention. UNESCO in 1999 accepted Libya's offer to fund an award named after it, the Great Man-Made River International Water Prize (last awarded in 2009). Funded from oil revenues, the project provided water free of charge to Libyan consumers [7].

Many of the Libyans who have worked on the project were trained in The Netherlands at Delft University of Technology and at the UNESCO-IHE Institute for Water Education [9].

The cost of the GMMR project to date are often quoted to be US\$ 25 billion but an official in the GMMR Authority in Benghazi, Abdussalam Jehawi, said this figure was exaggerated. The total cost since the start in 1984, he claims, has been about US\$ 9.2 billion with another US\$ 3.4b billion planned to be spent for the completion of phase three [10].

Nevertheless, the project cost more than it should have because engineers were abruptly told in the middle of planning in the 1980s for the second phase to go around a huge tract of the desert known as Rabta, where Col Qaddafi was building a chemical weapons plant known as "Pharma 150", Mr Jehawi said [10].

There has been speculation that Gaddafi has used GMMR pipelines as an escape route. Engineers who worked on the GMMR project during the 1990s say it was large enough to carry military vehicles down its entire length [11, 12].

- [1] Water supplies resume in Libyan capital, Reuters / ArabNews.com, 05 Sep 2011,
- [2] Water back on in parts of Tripoli: Libyan official, AP / Gulfnews, 05 Sep 2011
- [3] NATO bombs the Great Man-Made River, HRI, 27 Jul 2011
- [4] WFP and UNICEF partner to deliver vital humanitarian assistance to Libya, UNICEF, 05 Sep 2011
- [5] OCHA, Libyan Arab Jamahiriya Crisis – Situation Report No. 56, 11 Sep 2011
- [6] S. Korea to send water engineers to Libya this week, Yonhap, 06 Sep 2011
- [7] Frances Thomas, The GMMR Project: Libya’s achievement and NATO as war criminal party-pooper, OpEdNews, 01 Sep 2011
- [8] Wikipedia – Great Manmade River
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- [10] Bradley Hope, Libya needs water despite Qaddafi’s Great Manmade River, UPI, 29 Aug 2011
- [11] Martin Chulov and Peter Walker, Gaddafi sons face last stand in Libya, Guardian, 01 Sep 2011
- [12] Libya: what role for Great Man-Made River Project in conflict?, WASH news Middle East & North Africa, 11 May 2011

“Libya, Tripoli: water supply resumed as rebels regain control of the Great Man-Made River Project”, 16/09/2011, online at: <http://washmena.wordpress.com/2011/09/16/libya-tripoli-water-supply-resumed-as-rebels-regain-control-of-the-great-man-made-river-project/>

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❖ Ethiopia, Egypt agree to hold tripartite meeting on Nile

Egypt and Ethiopia agreed on Thursday to hold a meeting of its tripartite committee on the Nile, which also includes Sudan, to assess the potential effects of Ethiopia's building what it is calling the Grand Ethiopian Renaissance Dam on the river. The exact date of the meeting will be determined after Addis Ababa and Khartoum review the terms of the committee's purview.

The announcement came at a press conference held by Egypt's Water Resources and Irrigation Minister Hesham Mohamed Qandil and his Ethiopian counterpart, Almayho Tigno, Thursday evening at the Water Resources and Irrigation Ministry headquarters.

The ministers said they were waiting for Sudan's final reply to setting the committee's exact responsibilities. The committee will set mechanisms for future cooperation between the three countries in developing the Blue Nile.

They stressed that they did not discuss the Nile Basin Initiative, the consequences of which are scheduled to be discussed at a conference of energy ministers of Nile Basin countries in Kigali, the capital of Rwanda, at the end of October.

Qandil said the tripartite committee will be responsible for fostering areas of cooperation in water resource management and exchanging technical expertise, as well as developing a memorandum of understanding to share expertise between Egypt and Ethiopia's human resource ministries.

Tigno stressed that according to studies carried out by Ethiopian experts, the construction of the Grand Ethiopian Renaissance Dam on the Blue Nile will not negatively affect either country's share of water.

He added that the dam will bring economic returns to Egypt and Sudan, reduce the siltation that threatens the Sudanese and Egyptian dams, control flooding, and regulate the flow of water to Egypt and Sudan throughout the year, as per the tripartite committee's tentative agreement.

The Addis Ababa government believes that Egypt and Sudan are capable of establishing regional economic projects to achieve sustainable development for their people, Tigno said, adding that Ethiopia can export the electricity generated from the dam to both Egypt and Sudan, like it now does to Djibouti.

The Ethiopian minister said his country has agreed to form a committee comprised of experts from all three countries in order to confirm these claims and continue cooperation between the countries.

In the future, energy from the dam can be exported to Kenya, Rwanda, and even South Africa, he added.

The Ethiopian minister denied rumors that the Nile water would be transferred to Israel, saying that it would be technically impossible to do so considering his country's geographic location.

Qandil said Egypt would not allow Nile water to be transferred to Israel through the Egypt-Israel border because it is currently banned by international law, emphasizing that Egypt rejects the idea of transferring water out of the Nile Basin. He noted that the government of Addis Ababa has the right to carry out development projects so long as it respects international law.

“Ethiopia, Egypt agree to hold tripartite meeting on Nile”, 16/09/2011, online at:
<http://www.almasryalyoum.com/en/node/496171>

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❖ Egypt and Ethiopia to review Nile river dam

“Egypt says Ethiopia's planned Nile project "could be source of benefit" as two countries open new chapter in relations.”

Ethiopia and Egypt have agreed to review the impact of a planned \$4.8bn Nile river dam, which Addis Ababa announced in March, in a bid to open a "new chapter" in once-strained relations.

Ethiopian Prime Minister Meles Zenawi and his Egyptian counterpart, Essam Sharaf, made the announcement at a joint news conference following talks in Cairo on Saturday.

"We have agreed to quickly establish a tripartite team of technical experts to review the impact of the dam that is being built in Ethiopia," Zenawi said. Experts from Sudan will also be part of the team.

Sharaf said Ethiopia's planned construction of the Grand Renaissance Dam "could be a source of benefit" - an apparent change in tone by Egypt's new rulers on what has been a [highly contentious issue](#).

"We can make the issue of the Grand Renaissance Dam something useful," Sharaf said. "This dam, in conjunction with the other dams, can be a path for development and construction between Ethiopia, Sudan and Egypt."

'Win-win strategy'

Zenawi thanked Sharaf "for helping in opening a new chapter of relations between Egypt and Ethiopia".

"We all agree that the Nile is a bridge, it is not a barrier," Zenawi said.

"The future is a new relationship between Ethiopia and Egypt based on a win-win strategy," the Ethiopian prime minister added. "The past is a past based on a zero-sum game. That is gone. There is no going back."

Zenawi's visit to Cairo was the first by an Ethiopian official since former Egyptian president Hosni Mubarak was ousted by a popular uprising in February.

Both Zenawi and Sharaf, who visited Ethiopia for Nile talks in May, highlighted the positive nature of Saturday's talks and said they would be followed by further discussion.

The dam is planned for the Blue Nile river in northwestern Ethiopia, a few kilometres from the Ethiopia–Sudan border.

The dam is designed to have an installed capacity of 5250 MW, which is threefold of the 1885.8 MW installed capacity of the 12 currently operational hydro-power plants of the nation.

The hydro-power generation capacity of the plant will be equal to six middle size nuclear reactors and is destined to supply several neighbouring countries.

Revised Nile treaty

Relations between Egypt and Ethiopia plunged after countries that share the Nile river basin demanded the revision of [colonial-era agreements](#) that allot the bulk of the river's water to Egypt and Sudan and allow Cairo to veto upstream projects.

Egypt did not recognise an agreement among other basin countries that revised the treaties.

The revised agreement, signed by Burundi, Ethiopia, Kenya, Rwanda, Tanzania and Uganda, seeks to allow irrigation and hydroelectric projects to go ahead without Cairo's consent.

Under the Mubarak regime, Ethiopia took the lead in the campaign against Egypt, for whom the Nile is just about the only source of water. But Sharaf's government has repeatedly stressed its intention to resolve the dispute.

Zenawi said his country had delayed the submission of the treaty for ratification "so that the new Egypt can study it carefully".

"We will wait for the Egyptian side to make its decision in this regard," he said.

[Under a 1929 pact](#), Egypt is entitled to 55.5 billion cubic metres a year of the Nile's flow of around 84 billion cubic metres.

Apart from the Nile river dam, Ethiopia has announced plans to construct two more dams along its share of the Nile as part of a plan to produce 20,000 megawatts (MW) of power within the next 10 years.

"Egypt and Ethiopia to review Nile river dam", 17/09/2011, online at:

<http://english.aljazeera.net/news/middleeast/2011/09/2011917132445980153.html>

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❖ What should Ethiopians expect from Meles's two-day visit to Cairo?

Whether the official visit by the Ethiopian prime minister that takes place within a day or two would become successful, i.e., beneficial for Ethiopia, should not be a matter of judgment call. Nor should its outcome be seen as something that easily yields to embellishment by spin-doctors, adept at either sanitizing bad outcomes or fabricating non-existent successes, and citizens get distracted from its real contents.

When it comes to Ethio-Egyptian relations, however, there is proven approach that does not require any of that or sophistry without foundation. It only takes a simple recourse to history and seek inspiration to set criteria to determine the security interests of Egypt and the economic benefits it plans to derive from the prime minister's visit. Once that is understood, Ethiopia only needs to define what it wants from its relations with Egypt. In the light of that, I would prefer to measure the successes of this latest round of engagement between Ethiopia and Egypt by the quality of the agreement(s) they sign in the next days. Those agreement(s) should reveal:

- First, see that the signed trade and investment accords serve the interests of both sides; and
- Secondly, on the political front, their agreements, public or private, should show that there is nothing therein that helps predicate Egypt's security interests on the Nile River on continued Ethiopia's insecurity that we have witnessed in the course of our long histories.

Of course, achieving this calls for a confident state that relies on the support of its people. That would enable it to show its counterpart across the table that its security and continuity depends on the confidence citizens have in their government. This demands that the conditions obtaining in the country reflect continuing betterment in the lives of the people and the sense of security they enjoy. If not, people cannot be confident to plan for the next day with their sense of safety and dignity strong. That is where the Mubarak regime made the mistake of taking the people for granted only to be swept away by the 25 January Revolution.

As it happens, at this very moment both Ethiopia and Egypt have their respective serious difficulties. In Egypt, where the government is transitional, the population is still angry by the failure/refusal of the state to meet their demands for full freedom, justice and equality, the very premises of the 25 January Revolution. This anger has now escalated, manifesting itself with the launching of second phase of the revolution that now impinges on the political and security situation of the country. This has exerted huge demands on the state to deliver the goods and services it does not have. This is the situation in which agreement is being entered into.

In Ethiopia, the political, security and economic situations are increasingly posing serious challenges to the stability of the state. As its response to this situation, the state has responded with a wave of mass arrests and other repressive measures that are less likely to offer any solutions going forward. If the past is to offer any lessons, the measures now being implemented on the contrary are weakening the state, a situation that would make the Meles regime more nervous and its actions unpredictable.

Not least, the economic condition has been worsening for some time, although Ethiopia's image is slowly being associated with economic growth. Nonetheless, at 40.6 percent by the end of August, inflation has robbed the gains. Because of that, since 2005 the lives of broad segments of Ethiopian society have been severely affected. Telling evidences of this situation came from market conditions around the New Year a few days ago. On such an important occasion as the New Year, prices of basic foods citizens depend on have gone beyond the reach of ordinary people. Together with other political and security impediments, this situation in the country has become symptomatic of severe national distresses that make Ethiopia vulnerable.

In the face of this, it is appropriate that Ethiopians should have concerns whether this is a propitious time for Ethiopia to engage in negotiations with a key neighbor, with which the country for centuries has had issues. The fear is that this difficult situation may weigh heavily on the prime minister compelling him to focus on his present predicaments and ignore the country's long-term interests.

Certainly, it feels good when one sees assertive Ethiopia daringly rolls one dam and factory after the other, the question for citizens has been how do we pay for all that? Where does the money come that they don't have. At the same time, Mr Sharaf, unlike Mubarak's regime or its predecessors, has sought to address the situation through face-to-face meetings to find solutions. This should not be seen as a favor to Ethiopia; it should not feel compelled to respond in kind to this. If for some reason the Meles regime chooses to do that, without tangible benefits for its people, it would mean that it is deliberately committing another grave historical mistake, the correction of which would be extremely costly, if not impossible.

For benefit of the future, if there is any lesson to be drawn from the difficult or failed historical relations between our two nations it is the imperative need for identifying early on the commonality of interests. Once these are known, defining the parameters of cooperation or collaboration and any joint undertakings to be assigned for pursuance of national interests or common objectives become clearer. These minimize not only suspicions but also misunderstandings, thereby enabling Ethiopia and Egypt to inject confidence in their relations. In this regard, given the history of their relations, it is important, indeed beneficial, that Ethiopia and Egypt start from the scratch.

Above all, these are two countries that have missed numerous opportunities especially since the end of World War II. This has denied them possibilities to improve their relations to use the resources available to them for betterment of the lives of their peoples and beyond. Instead, they ended up dissipating their resources because of a wrong sense of security each tried to achieve for itself.

With that in mind, irrespective of what areas are covered in the coming agreement(s) Prime Ministers Meles Zenawi and Essam Sharaf would sign in a few days time in Cairo, as a citizen of Ethiopia I hold the view that the success of their endeavors can only be measured by how far the two sides go into redefining their relations and anchoring them on the principles of sovereign equality, mutual respect and promotion of mutual benefits, the underpinnings of which should be openness and transparency.

Egypt's stands to gain, again on Ethiopia's vulnerability

This September 17-18 visit comes at a time when Egypt's economic activities have significantly declined, primarily because of the instability arising from the 25 January revolution. Business confidence in Egypt is low and prospects for new investments and expansion of existing enterprises seem to be crippled. For most of the past several months, the stock market has been signaling downturns. In addition, of Egypt's two major export destinations, Libya has for months been reduced to rubbles because of the ongoing struggle against Gadhafi's dictatorial regime and NATO's bombings. Yemen is caught in the pangs of a revolution unwilling to go off; it is thus in no condition for development, to trade or absorb previous volume of Egypt's exports.

Prime Minister Sharaf has a good grasp of the situation. For Egyptian investors, these developments have made Ethiopia and other Nile Basin states more attractive, a view Egypt's government and businesses share. Therefore, the Sharaf government has set its eyes on three areas of investments in the Nile Basin countries. These are: agriculture, industry and construction, and were approved as a national strategy by his cabinet in March 2011, with a must attend invitation specifically directed to all members of the cabinet's Nile council. Following extensive discussions, the government has set up adequate facilities to support privately owned Egyptian companies that commit to invest in Nile Basin countries in these three sectors.

Therefore, all the groundwork done Egyptian diplomats, politicians and strategists are welcoming Prime Minister Meles Zenawi with huge expectations not only to make up for the slack the economy has suffered from. But also as policy measures, they seek economic expansion and increased financial ties with Ethiopia—an instrument that enables Egypt to kill two birds with one stone. That is, through penetration of capital and economic expansion, Egypt aims at strengthening its influence in Ethiopia, 86 percent of its water source country. The truth of this is not lost on Dr Samir Radwan, member of the Egyptian board of trustees at the General Authority for Investment, who says, "Regardless of pessimism or optimism, investing in the Nile Basin is at the base of Egypt's water security" (www.businessdayegypt.com, April 2010).

Without being anti-trade and anti-foreign investment, I say that capital invested in Ethiopian agriculture would produce food for Egypt, and/or export to other markets with little return for Ethiopia. In industry, the capital would set up factories, or Egyptian engineers would operate on Ethiopian infrastructures or buildings, with no chance for domestic industries. In the import and export trade, Egypt would dominate the market with its goods, while Ethiopia has been more interested in exporting meat and live animals to Egypt, without any value added. For that matter, in 2009 after the agreement was signed, Egypt dragged its feet under various pretexts and in the end signed a separate agreement to import meat from Argentina and Kenya.

That is not the fault of Egypt. Ethiopia failed to protect and strengthen its private sector, which now is at a loss to understand its role in the national economy. The blame for that went to the incipient private sector that lacked guidance. It is in this situation that the state is edging to be in everything, without certainty that things would turn out right, and when it has failed even in its main task—management of the nation's macroeconomic policies.

At this moment, Egypt is excited. After a meeting with the prime minister on 27 August in Addis Abeba, Egyptian Foreign Minister Mohamed Kamel Amr said he expected the visit and the ongoing negotiations to "turn a new page in the relations between the two countries." He was not alone in

that. Although it is not clear whether he was echoing his boss or sincere about it, Egypt new envoy to Ethiopia Ambassador Mohamed Edris similarly opined, “Meles’s visit would mark a new phase in Egyptian-Ethiopian ties,” according to The Egyptian Gazette (2 Sept).

As for his tasks, he carefully hinted his “main mission is to build confidence and understanding between Egypt and Ethiopia.” From the outset, this represents a sharp departure from the past, especially from his cynical and hawkish predecessor who created undesirable hostility in a November 2010 interview when he dared to arrogate the entire Nile River to Egypt, alleging that Ethiopia has many rivers and abundant rainfall. In that, he only invited sharp rebuke of Ethiopian officials.

Incidentally, palace car Meles had sent was waiting for Mr Edris on arrival at the Bole International Airport to drive him to his embassy, courtesy of Meles Zenawi. This is not necessarily a requirement on the host country, especially when the country has long established embassy. However, it is a symbolic gesture usually reserved for countries with special relations, its signal and the message behind it have not escaped hawk-eyed journalists in the Egyptian media. The key here is that, during his visit to Ethiopia last May Prime Minister Essam Sharaf has committed Egypt to a new beginning, based on give and take. The question then is, all its attention hinged on the Renaissance Dam (RD), would in Cairo Ethiopia end up giving more than it needs to because it has become aficionado for trade and investments, whose values are not often properly vetted?

Hailemariam Dessalegn in Cairo to finalize arrangements for the visit

Deputy PM and FM Hailemariam Dessalegn has already been in Cairo since Wednesday, 14 September, at the head of an Ethiopian delegation (working level), according to Egyptian news sources. Surprisingly, the news was not even reported by the national media, such as the national news agency that was established in 1942, or on the national radio and television ERTA; nor on the Ethiopian press agency (EPA). It was only Walta Information Centre, the ruling party outlet that devoted a few paragraphs without substance. Could this be deliberate attempt at deinstitutionalizing government agencies, while institutionalizing the ruling party’s outfits? Or is it because they were conserving energy for coverage of Ethio-Egyptian relations during the prime minister’s visit in Cairo?

Therefore, the Egyptian media is not only the first to report arrival in Cairo of DPM/FM last Wednesday. But also its reporting was well informed about purposes of the prime minister’s visit, as could be seen from the reporting covering the most crucial elements. Key in that report is they also highlighted Egypt’s focus: “to examine various areas of cooperation between the [two] countries as well as ways to increase Egyptian investments in Ethiopia”, according to <http://www.almasryalyoum.com/en/node/495535>. Furthermore, it is reported that the two sides would discuss regional issues of relevance to both sides such as the situations in Somalia, Sudan, South Sudan, as they put it very distinctly [pay attention here] also the famine in Somalia and drought in the Horn of Africa.

There has been general reticence on the Ethiopian side about purposes of the visit, much less prognosticating what they plan to achieve. Most striking, however, was the remark by Foreign Minister Hailemariam Dessalegn on 29 August who after his discussion with his Egyptian counterpart in Addis Abeba in bland language told the media, “Ethiopia has keen interest to work

closely with Egypt”, according to the webpage of Ethiopia’s foreign ministry. The only annex to that remark was his request to Egypt to share its rich experience in the tourism sector.

As to the tasks before the DPM/FM and the ‘pre-summit’ sort delegation he leads, I understand from the Egyptian foreign ministry briefing of 25 August that two-day meetings of a committee comprising delegations of the two countries would work on “setting a vision for exchanged projects and investments, and ways and means of activating the contractual framework between the two sides.” In simple terms, the committee would in these two days build on works undertaken through various channels, including contacts between the two prime ministers—in person and via other means, such as through their embassies. These second-tier officials would eventually come up with a communiqué to be signed by the prime ministers. Nevertheless, there is strong hunch that most of the core positions have already been sorted out at the highest level.

For instance, Meles and Sharaf met on 4 July in Malabo, Equatorial Guinea, on the sidelines of the 17 African Union (AU) summit. There is word that the two leaders have already clarified their positions. Accordingly:

- a. The Nile Question would not be discussed in Cairo during Meles’s visit, since it was agreed already in June 2010, at the 18th session of the Nile council of ministers with Ethiopia as its chairperson, in line with Sudan’s proposal supported by Egypt, to discuss first the ramifications of the comprehensive framework agreement (CFA), renamed the Entebbe Accord, on downstream countries. Consequently, in line with that decision discussion on the Nile Question would only take place in Kigali, Rwanda, from 27-28 October 2011.
- b. There is no doubt that Egypt’s main concern now is the rush of dams Ethiopia is rolling, especially fear of public backlash. However, already during Prime minister Sharaf’s visit last May, Ethiopia, Egypt and Sudan have agreed to the setting up of a tripartite mechanism to examine how the RD affects the flow of water to Egypt and Sudan. The initial understanding was that the committee’s conclusions would be considered before this visit. It is now clear that the committee has not even met. Egypt reported recently that it has not even selected experts to work on it.
- c. Clearly, this implies that there is common understanding between the two prime ministers that the RD or other dams Ethiopia is proposing would not be raised as problem at this point. With all its intelligence in the largest embassy Egypt has in Addis Abeba, it should by now have all information it requires to decide its position. This is indication that Egypt is ready to live with the RD, not because of this visit, but because there is a change of policy in that country. Otherwise, it could have taken protest, even if it has no means of stopping it.
- d. After all, unlike in Ethiopia, Egyptian society has stronger say on the Nile Question. In fact, that had been the only issue on which Egyptians and the Mubarak regime saw eye-to-eye, having fed them the mistaken belief that the Nile was Egyptian. The people believed that the Mubarak regime had provided adequate security and protection of Egypt’s control over the Nile. This stronger role and sense of popular participation has been strengthened because of the middle class in that country, especially the elites that run the bureaucracy.

e. In my opinion, therefore, this should not be seen as Egypt's concession to Ethiopia. Awareness is needed in that regard not to make the mistake of considering reciprocity. When Egypt makes minor concession in one area, it would ask for huge returns in areas of vital importance to it.

f. The focus of the visit, to the extent possible would be trade and investments, not the Nile Question as the Egyptian foreign ministry tried to hint repeatedly.

Finally, the essential point here is that any understanding with Egypt has to be weighed in carefully, since it is capable of affecting Ethiopia's vital interests for generations to come. Leaders in Egypt may have changed, but Egypt's policy on the Nile could only undergo superficial changes. For that matter, the new government has not even mapped out its Nile policy. At this point, some pronouncements of Prime Minister Essam Sharaf we know nothing about official Egypt's policy on the Nile River.

On Ethiopia's side, the most serious problem could arise from the excessive politicization of the harnessing the Nile to rally support for the government. The push by everyone from local village leader to the federal government is accelerating its diminishing utility for propaganda purposes. There is no doubt the RD is a grand undertaking, our country's symbol of its new assertiveness— if only eventually some may choose its utility more coolant for the anger brewing within the populace or souring sentiments overall.

“What should Ethiopians expect from Meles's two-day visit to Cairo? “, Keffyalew Gebremedhin, 16/09/2011, online at: <http://www.abugidainfo.com/?p=18838>

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❖ Water sharing issue: Bangladesh-India cooperation

There were a lot of expectations from the recent Hasina-Manmohan Summit particularly on the Teesta water sharing issue. But, all our expectations went in vain. Actually, Bangladesh has been negotiating with India for harmony, development, and sharing trans-boundary river waters for equitable distribution for a long time. And over the years, sharing trans-boundary river waters has been a major cause of dispute between India and Bangladesh.

Water is a natural resource and natural resources in general, exhibit a number of characteristics that have an impact on conflict/cooperation dynamics. First, they are embedded in a shared social space and can generate conflicts. Actions undertaken by one individual or group or country may generate effects far off-site. Second, natural resources are subject to increasing scarcity which is complicated by such issues as unequal distribution. In this case Indo-Bangla water sharing is a point. From the perspective of the above characteristics, trans-boundary waters are especially important in the development of patterns of conflicts or cooperation.

Regrettably, despite sharing fifty-four rivers with India, Bangladesh has only one water sharing treaty with it, signed on December 12, 1996 on the River Ganges. But India removed the guarantee and arbitration clauses regarding minimum water from the treaty. On sharing of common rivers, Article 9 of the 1996 Ganges Water Treaty makes it obligatory for India to conclude water sharing agreements with Bangladesh on principles of equity, fairness and no harm to either party. But the real picture is different. Although a thirty-year water treaty has been in effect between the two countries since 1996, India was found diverting water according to its own will, depriving Bangladesh from its just share during dry season.

Bangladesh is a country that critically depends on the trans-boundary rivers for its continued security and survival. For all the rivers that cross its border to flow into the Bay of Bengal have their roots in India. And after originating from the Himalayas in most cases, the rivers flow through a third country, before they cross into Bangladesh. This has put Bangladesh in a tight spot on the issue of sharing water from those rivers with India.

Since the trans-boundary rivers are within the territory of India, it did not discuss and come into agreement with Bangladesh on the blockage or diversion of waters of rivers although the Indo-Bangladesh Joint River Commission (JRC) exists since 1972. India has constructed a huge Farakka Barrage in order to divert a portion of dry season flow to increase the navigability of Kolkata Port. Right after, when it went into operation in 1975, the fresh water supply of the Ganges decreased considerably with a number of consequent effects in the south-west part of Bangladesh. Moreover, agriculture, navigation, irrigation, fisheries, forestry, industrial activities, salinity intrusion of the coastal rivers, ground water depletion, river silting, coastal erosion, sedimentation as well as normal economic activities have been adversely affected. Water sharing of Ganges is one of the most serious and disputed issues that has bitterly affected the relations between India and Bangladesh. Dispute regarding the sharing of the water resources in the Ganges-Brahmaputra river system between Bangladesh and India is long standing.

The construction of Tipaimukh Dam for generating 1500 MW electricity on the trans-boundary Barak River has raised hue and cry both in Manipur state in India and in Bangladesh. According to

experts, the construction of the proposed Tipaimukh Dam in a geologically sensitive zone, adjacent to the well recognised Taithu Fault is a major concern. A major earthquake may cause the failure of the dam and endanger the lives, land and forest of both India and Bangladesh. The risk of dam failure is a significant issue. A dam-break is a catastrophic failure which results in the sudden draining of the reservoir and a severe flood wave that may cause destruction and deaths downstream in Bangladesh. If India implements the project, the downstream Meghna River will lose its water flow and the country will gradually turn into desert amid acute water crisis. Without any doubt, this dam will bring catastrophic effects on Bangladesh like Farakka. India's river linking projects (RLP) is highly likely to have disastrous consequences for Bangladesh even in greater magnitude and scale covering the whole of the country.

It is very unfortunate that, India has postponed the proposed Teesta water sharing deal with Bangladesh amid alleged opposition from West Bengal Chief Minister Mamata Banerjee. Mamata had expressed her unhappiness about equally sharing of Teesta waters with Bangladesh. She has not agreed to equal sharing of the Teesta waters and she strongly believes that Bangladesh should get only 25 per cent of the water of Teesta. She also thinks that the pact is unfair. It raises question about her respect to international law. As with international rivers, no state has the right to divert the natural flow of water within its territory unilaterally. The question of water sharing treaty should not come in an international river. If one looks into West Europe and North America then it will become clear. They do not divide the waters, what they do is its joint and collaborative use, its development and preservation. During the last twenty years East Europe (ex Save river), Africa (ex Lake Victoria, Zambezi river), and South America (Pantanal, Paraguay river) did the same.

Actually, water sharing on the international rivers will be on the basis of international law on rivers. India has no right to embark or divert waters of international rivers like Ganges or Teesta. The International Law Association in 1966 laid down that every riparian state is entitled to a reasonable and equitable share in the beneficial uses of waters of international drainage basin. The UN International Law Commission in its Article 7 also emphasises that states shall utilise an international river in an equitable and reasonable manner. Therefore, it is legal rights of Bangladesh to get equitable share with regard to water sharing. It is not benevolence for Bangladesh but justice. Bangladesh should take a strong stand during negotiation as national interest is the cornerstone for any negotiator and each of the parties will try to ensure its national interest as national interest is the heart of conducting diplomacy which is again proved from Mamata's stand.

Freshwater is already a scarce resource and it is becoming scarcer day by day which is a source of conflict. Therefore, there is no alternative but cooperation with regard to water sharing. Regional cooperation of the co-riparian countries is crucial for Bangladesh to address her water challenges. Bangladesh needs to build up coalition and strengthen lobbying with Nepal, Bhutan as well as with Pakistan as there is a water sharing dispute between India and Pakistan. Many experts suggest that, it is not possible to resolve water dispute with India bilaterally and therefore, we have to bring the issue in the multilateral forum like UN.

Unless the riparian countries join together to ensure optimum use of water, there is the likelihood of dispute and tension in the future. SAARC can play an important role in reducing vulnerability of future water-related disasters through regional cooperation on water management and conservation and development of cooperative projects at regional level in terms of exchange of best practices and

knowledge, capacity building and transfer of eco-friendly technologies. Many think that, there is another lesson for Bangladeshi negotiators to study Kautillay's diplomacy. Indian mindset and zero-sum gain attitude in negotiation must change for a longer healthy, sound Bangladesh-India relationship. Lastly and most importantly, Bangladesh and India should recognise and respect each other's rights as per international law. And efforts should be made to firm up regional cooperation like in the Mekong river basin to ensure equitable distribution of water of the common rivers.

“Water sharing issue: Bangladesh-India cooperation”,Md Shariful Islam, 13/09/2011, online at:
http://www.thefinancialexpress-bd.com/more.php?news_id=149248&date=2011-09-13

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❖ Moving Water From Flood To Drought

WASHINGTON -- As the soggy East tries to dry out from flooding and Texas prays for rain that doesn't come, you might ask: Isn't there some way to ship all that water from here to there?

It's an idea that has tempted some, but reality gets in the way.

A Texas oilman once envisioned long pipelines carrying water to drought-stricken Texas cities, just one of several untested fantasies of moving water vast distances. Parched Las Vegas still wants to indirectly siphon off excess water from the overflowing Mississippi River. French engineers have simulated hauling an iceberg to barren Africa. There are even mega-trash bags to move heavy loads of water.

There's certainly plenty of rainwater available. Tropical Storm Lee dumped enough on the already saturated Mid-Atlantic, Northeast and Gulf Coast to bring 9.6 inches of rain across the entire state of Texas, according to calculations by the National Oceanic and Atmospheric Administration and The Associated Press.

"One man's flood control is another man's water supply," said Patricia Mulroy, general manager of the Southern Nevada Water Authority. "Doesn't it make you want to think about a larger distribution that helps both? That's the crazy part of this. It's a win-win. There's no loser."

But moving vast quantities of water is not simple or cheap, and thus not realistic, experts say. Mostly, it's too costly and political.

However, these dreamed-up concepts show that a quiet water crisis is getting more desperate.

"We will go to any lengths to avoid confronting the reality of water shortages," said University of Arizona law professor Robert Glennon, author of the book "Unquenchable."

"What all those zany ideas suggest are the traditional beliefs that we can control nature and there must be some oasis out there where we can go to, to import water."

But those are mirages, he said – tempting, but not realistic.

Mike Halpert, deputy director of the NOAA's Climate Prediction Center, knows the temptation. He's about to fly from Washington, which has had 7 inches since Monday, to Houston, which got about that amount of rain for the entire spring and summer. All that D.C. rain would be enough water for every person in Houston for 10 days.

He jested that he would love to carry water in his suitcases. He said colleagues have been "joking that we'll send Texas our water. Will they send us their oil? But I don't think that's going to fly."

The trouble with water is "there's enough quantity but it is not always in the right places," said G. Tracy Mehan, who was chief water regulator for the U.S. Environmental Protection Administration during the George W. Bush Administration.

So how about moving it?

"The short answer ... is that it costs too much. It's not a technical problem," said Peter Gleick, president of the Pacific Studies Institute and a MacArthur genius grant recipient for his work on water.

Las Vegas' grand proposal is to take water from the mighty Mississippi in a series of smaller pipeline-like exchanges among states just west of the Mississippi to refill the overused Colorado River. There are no official cost estimates, but it likely would be in the hundreds of billions dollars. Texas oilman T. Boone Pickens abandoned his plans for a massive water pipeline stretching across Texas to just moving water around the Texas Panhandle.

Water weighs a lot – about 8.3 pounds per gallon – so moving massive amounts, often up mountains, costs a lot, Glennon said. Gleick notes that conservation and efficiency are cheaper.

Building a pipeline to pump water from flooded areas is foolish because each year it is somewhere different that gets drenched, so you can't build something permanent based on a couple of years' unusual rainy weather, NOAA's Halpert said.

For purely moving water, Gleick likes a smaller-scale concept: the trash bag. A California firm has designed Spragg Bags "with the world's strongest zippers" that haul millions of gallons of drinking water from one place to another over the ocean, said inventor Terry Spragg. It's been used in Greece.

When asked the cost to haul excess water by bag from the flooded Northeast to Texas, Spragg declined to say. "It just wouldn't be practical. It's just too distant... Forget about taking it from New Jersey or Pennsylvania, there are sources that are closer."

If you want to go high-tech for water, desalination – taking salt out of ocean water – and reusing wastewater for drinking water are cheaper and more realistic, said Gleick, author of the book "Bottled and Sold: The Story Behind Our Obsession with Bottled Water."

In Big Spring, Texas, they are looking at reusing wastewater by treating it and then adding it to the fresh water supply. Orange County, Calif., has a state-of-the-art water recycling program. And on the International Space Station astronauts use a system that turns their urine into drinkable water. Tampa has a new \$158 million water desalination plant that can produce as much as 25 million gallons of water a day from the sea.

While those who need more water say the challenge is just a matter of balancing out too much and too little, other experts say there is a bigger problem: 1 billion people on Earth don't have clean drinking water.

"Absolutely there's a water crisis, but it means different things in different places," Gleick said. "In Africa, it's people dying because they don't have safe drinking water. In Texas, it means people at risk and property being damaged because there's a natural drought. In some places, it might mean not enough water to make semiconductors and grow food.

"Nature always distributes water unevenly – that's just the way it goes," Gleick said.

In the 20th century in the United States, the answer to water shortages was to drill another well, tap another aquifer, build more dams, divert more rivers and build pipelines, Gleick said. But now "we're running into limits."

Politics is almost as big a barrier as price. Legal battles over water run rampant in U.S. history, especially out West. But now they have gone nationwide, along with shortages. North Carolina has sued South Carolina, Florida has sued Georgia and Alabama, and the Great Lakes states have banded together to fend off water diversions, Glennon said. The Great Lakes region has been in and out of court over water rights for about a century.

"People are concerned about water rights. Even in eastern water-rich states, you don't want to be giving it away," said Robert Holmes, who deals with the problem of too much water. He is the national flood hazard coordinator for the U.S. Geological Survey.

University of Colorado natural hazards professor Kathleen Tierney put it more bluntly: "As we say in Colorado, whiskey is for drinking, water is for fighting over."

"Moving Water From Flood To Drought", 09/09/2011, online at: http://www.huffingtonpost.com/2011/09/09/moving-water-flood-drought_n_956467.html

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❖ Qatar to irrigate land with treated wastewater

In a move those concerned over the Middle East's water security will find reassuring, Qatar has started the large-scale use of treated sewage water for irrigation.

While the move comes in an attempt to encourage agricultural production, the Ministry of Agriculture's decision to begin irrigating 833 sq km of saline land will pave the way for further water reuse projects in the region. The use of wastewater has been unpopular in the Middle East, but experts have said that it's a system that will need to be implemented on a far wider scale if the region is to stabilise its water security situation.

"Qatar to irrigate land with treated wastewater", Michael Palmer, 18/09/2011, online at: <http://www.utilities-me.com/article-1573-qatar-to-irrigate-land-with-treated-wastewater/>

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