

ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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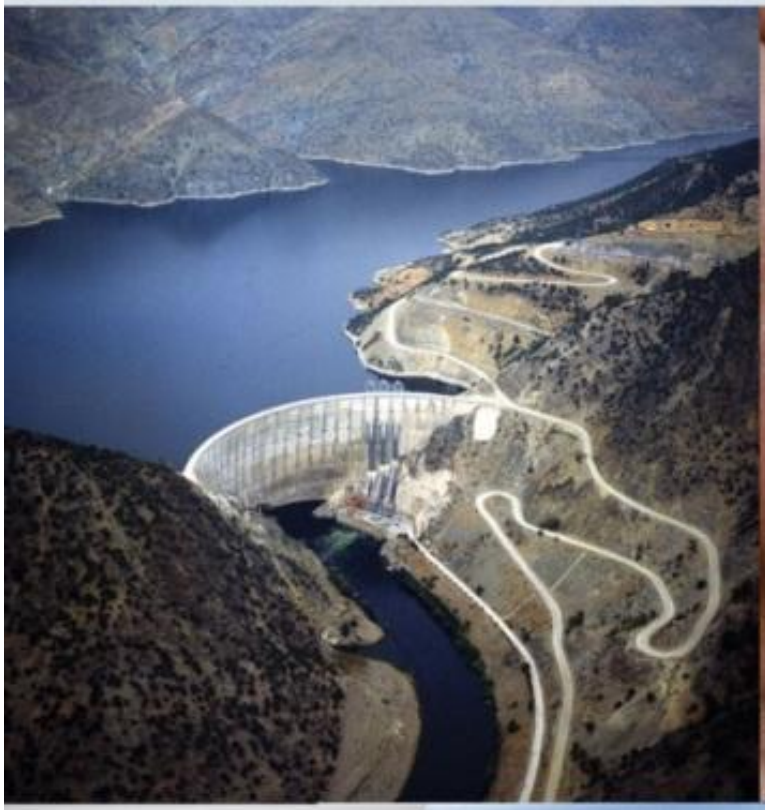



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❖ Egypt's Arab Contractors to handover Iraqi Desalination Plant in 2017

Egypt's leading construction firm, Arab Contractors intends to deliver its biggest projects in the Arab world, a water desalination plant in Iraq's Basrah city within 2017.
The plant is with a total investment cost of US$800 million.

From his part, Sayed Farouk, First Vice Chairman of Arab Contractors - said his company is implementing the Iraqi project through a consortium with a major Japanese company.

Arab Contractors is targeting other international consortiums, seeking to award more infrastructure projects currently being offered in Iraq, the Egyptian official noted.
Basrah's water desalination plant will be with a total capacity of 199.000 m3 per day, aims to fill the citizen's needs for portable waters, Farouk said, describing the plant as one of the biggest infrastructure projects in Iraq.

Moreover, AC's vice chairman said his company is expected more businesses in Iraq in the coming period.
Arab Contractors exists in 9 Arab states, notably Tunisia, Algeria, Iraq, UAE, Kuwait, and Jordan in addition to 16 African markets, mainly Congo, Ethiopia, Chad, and Nigeria.

"Egypt's Arab Contractors to handover Iraqi Desalination Plant in 2017", 11/03/2015, online at: https://www.zawya.com/story/Egypts_Arab_Contractors_to_handover_Iraqi_desalination_plant_in_2017-ZAWYA20150312060025/

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❖ IS Destabilizes Tigris-Euphrates river basin

For two weeks, artifacts and historical sites typical of the Mesopotamia civilization in the area of the Tigris-Euphrates river basin have been under organized and systematic destruction by the Islamic State (IS) group, which means a severe blow to human civilization.

The IS group released a video on Thursday showing militants using sledgehammers to smash priceless ancient statues inside the Mosul Museum in northern Iraq, describing the relics as idols that must be removed.

The statues showcased recent archaeological finds from the ancient Assyrian Empire. They are among the most wonderful examples of the Assyrian art and are part of the great history of Iraq, and of Mesopotamia.

However, the whole world has lost them forever.

In Nimrud, an ancient city with a history of more than 3,000 years in present-day Iraq, the extremists trucked away statues as they damaged the irreplaceable remains of the ancient Assyrian capital, where monumental statues of winged bulls, bearded horsemen and other winged figures, all symbols of an ancient Mesopotamian Empire in the cradle of Western civilization, were located.

The whole world feels inconsolable grief for the loss. It is not only a tragedy for Iraqi cultural heritages, but also a catastrophe to human civilization.

Worse still, the destruction is only the latest episode to smash the rich cultural heritages across the area under its control in Iraq and Syria, religiously and ethnically diverse areas with traces of civilizations dating back to ancient Mesopotamia.

Last year, the militants destroyed the Tomb of the Prophet Jonah and the Mosque of the Prophet Jirjis — both revered ancient shrines in Mosul. In February, it was reported that the militants burned thousands of books and manuscripts from the Mosul library.

The concerted destruction in Mesopotamia, the very cradle of the Western civilization and, most importantly, part of the shared cultural heritages of the human race, shocked the entire world. Many different cultural traditions trace their roots back to this part of the world, which is literally in peril at the moment.

With the destruction of these cultural heritages, human beings can no longer be proud of Mosul's abundance in relics of ancient civilization: the knowledge and information we were able to gain about our ancestors and the earliest civilizations therefrom have disappeared into dust.

The deliberate destruction of the great cultural heritages constitutes, in the words of the United Nations Secretary-General Ban Ki-Moon, a war crime. It is a tragic assault not only on the Mosul Museum, but on the universal commitment to using art to unite people and promote human understanding.

The shared cultural heritages deserve universal cherishing by all human beings. It is beyond comprehension that the IS has done such enormous damage to the irreplaceable pieces of history. It is high time for the IS to put an end to such vandalism, for it is particularly painful when destruction takes place in Mesopotamia — the backdrop for some of "the earliest leaps forward' in astronomy, medicine, law, commerce and agriculture.

"IS Destabilizes Tigris-Euphrates river basin", 09/03/2015, online at: http://www.spyghana.com/is-destabilizes-tigris-euphrates-river-basin/

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❖ Iran Beset by Water Woes From Wetlands to Afghan Border

(Bloomberg) -- Aziz Sabouri was 10 when he started herding cattle along the shores of the Hamoun Lakes by the Afghan border in Iran's southeastern Sistan-Baluchestan province.

Now 80, his face craggy with deep lines, Sabouri stands in the middle of a vast tract of bone-dry land, taut with cracks and dotted with derelict boats -- the oases of wetlands he dreams of from his youth all but vanished.

"I want the government to bring water back," said Sabouri, wearing a white turban and the province's traditional long tunic over baggy trousers. "If there is water, my life will change."

Holder of the largest gas deposits and fourth-biggest oil reserves according to BP Plc, the Islamic republic has been hobbled by U.S.-led sanctions over its nuclear program. Yet Sabouri's worries are more specific: water deficits, dust storms, 650,000 wells drilled that deplete groundwater, wasteful irrigation practices, a shrinking habitat and chronic air pollution.

Iran is an arid country, ranked 24th most water-stressed by World Resources Institute. Water shortages aren't uncommon, largely from drought, the worst from 1998 to 2001. Dust and sand storms that increased amid climate change now blow across desiccated lake beds, plaguing the Hamouns, Lake Urmia in the northwest and the Shadegan wetlands in the southwest.

In the Hamouns, a severe freshwater decline has devastated fishing and farming, prompting the exodus of hundreds of thousands of people. Those remaining agonize over limited water supplies.

Dried Lake

In Urmia, the saltwater lake's shrinkage led to higher salinity in surrounding lands, salt drifts hurting crops and a brine shrimp's habitat. The disappearance of the lake, a UNESCO biosphere reserve, has been accelerating since 2011.

Withering too are the Shadegan wetlands, a UNESCO-listed heritage site with fresh, brackish and salt waters near Iraq's border, Parviz Garshasbi, deputy head of Iran's Watershed Management Organization, told the Iranian Students' News Agency.

Iran's current water consumption, he said, doesn't help: 11 to 13 billion cubic meters beyond its groundwater capacity. A million gallons of water in comparison fills 20,000 bathtubs.

Iran's water availability per capita fell to 1,900 cubic meters last year from 7,000 in 1956, according to the UN. After warning about over-usage, the government briefly cut water supplies to 3,000 big users in Tehran last year.

Restive Populace

A thousand miles (1,660 kilometers) from Tehran's urban sprawl, the Hamouns' ecological distress angers Iran's most restive province. It also affects relations with Afghanistan, where a third of the wetlands exist.

Sistan-Baluchestan is Iran's poorest province. With 2.5 million people, it has the second-lowest number of households using the public water system and Iran's youngest population. Southern Sistan-Baluchestan, which shares a border with Pakistan, is home to a predominantly Sunni, ethnically Baluch population where Sunni insurgents have staged several attacks on border police in the past few years.

Villages near Hamouns' parched lake beds are strikingly similar to those around the adjacent Afghan province of Farah. Before sections of the border were closed two years ago, families would freely cross to visit relatives on the other side.

Now, "we have our livelihoods at stake, our economy at stake, we have our future at stake," Masoumeh Ebtekar, vice president of Iran and head of the country's Environment Protection Organization or EPO, said at a ceremony in the border town of Zabol.

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A decade ago, the three lakes comprising Hamoun's wetlands covered 5,600 square kilometers, the size of Utah's Great Salt Lake. They served 420,000 people, two cities and 935 villages, EPO says. Today, only a few shallow patches of water remain.

"This is it, there's nothing, it's empty," said Ali Owsat Hashemi, governor of Sistan-Baluchestan, pointing toward an endless arid horizon.

The drying has almost doubled seasonal dust and sandstorms from 120 days a year to 220 days, increasing respiratory, heart and intestinal illnesses and rates of cancer, according to a 2014 report published by EPO and the United Nations.

It's a fate mirroring that of Urmia, 2,100 kilometers to the west. Once the Middle East's largest saltwater lake, it's now 20 percent of its former size. Salt-infused winds blowing across barren sections are causing "serious" local health problems, according to the UN Development Programme.

Urmia's devastation gained the attention of President Hassan Rouhani, who has pledged $5 billion for recovery works. Officials say early efforts may be paying off with water levels in Urmia beginning to recover. How much is unclear. Ninety percent was dry in 2014.

Majestic flocks of flamingos, once a fixture at the lake, returned last fall after several years' absence, the head of Urmia's national park said.

The Hamouns, spread across a frontier shared with Afghanistan's Nimroz and Farah provinces and on UNESCO's tentative inclusion list, have received far less attention. Ebtekar wants that to change.

EPO ponied up $1 million to start. Ebtekar hopes Afghanistan will also step in to help.

Iran links the Hamouns' problems to Afghanistan, urging its war-stricken neighbor to control irrigation of the Helmand River that starts in the Hindu Kush mountains and traverses agrarian provinces before reaching the border.

An Iran government report about the Hamouns says increased irrigation, diversion of water for crops, population growth and largely U.S.-funded projects including the Kajaki Dam started reducing flows to Sistan-Baluchestan in the 1950s.

Shared Interest

"It's important that our agricultural practices are revisited on both sides," Ebtekar said in an interview. With a new Afghan government on Ashraf Ghani's election in September, "we're very hopeful they will pay more attention to this issue," she said.

Afghanistan's ambassador to Iran insists both countries have a shared interest in water management and replenishing the borderlands but said Helmand province and his nation have "been struggling with more than 30 years of war."

"We hardly use any of our own resources," the ambassador, Nasser Ahmad Noori, said in an interview. Population growth and a lack of rain contributed "but we can't put the problem entirely at Afghanistan's door," the envoy said.

Over the years, cooperation over water matters has barely gone beyond the Zabol ceremony where poetry is read and traditional Sistani music plays.

Efforts to reach a water-management pact on the border date to the 1970s. Talks revived in the mid-2000s, a few years after after the Taliban government was deposed. They stalled again in 2008 when Afghanistan refused to endorse a UN-backed proposal from Iran to save the Hamouns.

"We need to forge consensus between both countries," Gary Lewis, the UN representative to Iran, said at a recent gathering on the dusty banks of a Hamoun lake bed.

For Sabouri and others, the presence of officials in the impoverished enclave brings scant reassurance.

While the area around the Hamouns is largely free from the attacks that have plagued Iran's security forces further south near the border with Pakistan, parts of the frontier with Afghanistan are still closed, halting a black-market trade route for fuel and goods, making things even worse for locals in light of the lake's disappearance.

People were left with little choice but to leave.

"Fifty villages used to be in this area," said Mohammad Bazzi, a 55-year-old livestock herder. "Where are they are now? They've gone because there's no water, they've left for other towns."

"Iran Beset by Water Woes From Wetlands to Afghan Border", 10/03/2015, online at: http://www.bloomberg.com/news/articles/2015-03-10/iran-beset-by-water-woes-from-wetlands-to-afghan-border?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=d3f48928cc-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-d3f48928cc-250657169

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❖ **'19 illegal wells sealed, 441 fixtures on water mains removed in February'**

AMMAN — Authorities removed more than 441 illegal fixtures on water mains and carriers across the Kingdom in February, government officials said on Monday.

Under an ongoing campaign to end water theft and violations on water networks and resources in the country, the Water Ministry and security authorities also sealed 19 illegal wells last month, raising the number of sealed wells since the start of the campaign in July 2013 to 600, a ministry official told The Jordan Times on condition of anonymity.

Moreover, the ministry, water companies and security forces seized and confiscated 19 drilling rigs, the official added.

In a statement e-mailed to The Jordan Times, Water Minister Hazem Nasser said more than 14,000 illegal fixtures on pipes and carriers supplying cities with water have been dismantled since the crackdown on water theft in the country started.

"Authorities are carrying out regular inspections of water pipes and mains and are constantly removing violations and sending those involved to court… water violations are considered economic crimes under Article 456 of the Penal Code," Nasser underscored.

Water theft in Jordan constitutes 70 per cent of water loss, according to the ministry, which seeks to save an estimated 35-50 million cubic metres of water that is stolen or wasted via illegal fixtures and the drilling of illegal wells.

The ministry banned the drilling of wells in 1997 to limit random pumping of water and preserve aquifers from depletion and salinity. There are 1,318 wells across the country, more than 400 of which are unlicensed or illegal, according to official figures.

Nasser said the Jordan Valley Authority handled 845 violations on state-owned land, highlighting that infringements on the King Abdullah Canal are increasing, standing at 2,957 violations since the campaign began.

The 110-kilometre King Abdullah Canal, which is supplied by the Yarmouk River, irrigates 40 per cent of the crops in the Jordan Valley and provides some 40 per cent of the capital's water after it is treated at the Zai Water Treatment Plant.

The amended Water Authority of Jordan Law stipulates stiffer penalties against those who abuse any element of the water system.

Those who abuse water carriers and mains, wastewater, pumping, purification or desalination stations; or cause the pollution of water resources, pipes or stations used for drinking water; and dig or are involved in the digging of wells without obtaining a licence, face a prison sentence of up to five years and fines up to JD7,000.

In addition, violators of water and wastewater projects are jailed for up to three years and fined up to JD5,000, according to the new amendments.

All penalties stipulated under the new law are doubled in the case of repeat offences.

"'19 illegal wells sealed, 441 fixtures on water mains removed in February'", 09/03/2015, online at: http://jordantimes.com/19-illegal-wells-sealed-441-fixtures-on-water-mains-removed-in-february

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❖ First planned Palestinian city nears opening after Israel OKs water Access

TRANSCRIPT

BASHAR MASRI: Palestinians tell me that the hair on their arm stands when they see the flag coming from the bottom and they see it on top of the hill.

MARTIN FLETCHER: You can hardly miss it – a thousand feet of Palestinian pride.

Among the dry West Bank hills about 20 miles from Jerusalem. Bashar Masri is fed up waiting for the politicians to build a Palestinian state.

BASHAR MASRI: We are in a hurry. I am in a hurry.

MARTIN FLETCHER: So this 52-year-old Palestinian-American businessman is building the first planned Palestinian city.

BASHAR MASRI: And I know most of my people are in a hurry. We would love to see a great nation for our kids and grandchildren, but we also want to see it for ourselves.

MARTIN FLETCHER: Masri has raised a billion dollars to fund the biggest private investment in Palestinian history.

That's- that's one big gamble for you.

BASHAR MASRI: It is a large gamble, definitely. However, if we the Palestinians don't take risks then who's going to do that and our nation will never be built.

MARTIN FLETCHER: The message: get on with it.

Masri's city is becoming a fact. Rawabi – it means "the hills" – some 40,000 Palestinians will live here.

Homes here cost between $60,000 and $180,000. You can even get a mortgage, once unheard of in these parts. The first two sections, some 650 apartments, are almost sold out.

BASHAR MASRI: There's three movie theaters. Museum. A library. There's a hotel. There's a convention center.

This is Nablus gate. The one to the west is Jaffa gate. The one on the other side is Gaza gate. Then Jerusalem gate.

MARTIN FLETCHER: There's no Tel Aviv gate?

BASHAR MASRI: No, Jaffa's close enough. Okay?

MARTIN FLETCHER: It's all political symbolism. This is a Palestinian family, holding hands, united to protect the Palestinian flag.

It symbolizes their future. And it's everywhere – on trucks, cranes. Sending a message to the world. And the Jewish settlement of Ateret, about a quarter mile across the valley, on land the Palestinians call their own. The settlers here have mixed feelings about their new neighbors.

AVIGAIL DAMRI: I hope they'll have this good city and they'll be- they'll live happily, so maybe they won't be so anti- and so angry. And maybe they'll also live in peace with us. That's what I hope for and I pray for. But I think that we also- also should like live here without any fear.

MARTIN FLETCHER: Rawabi sits in areas fully or partially under Palestinian control. It is surrounded by land fully controlled by Israel, where many of the resources come from, like water.

MARTIN FLETCHER: At the moment, you're expecting people to move in maybe early next year. When they turn the tap on in their apartment will there be water?

BASHAR MASRI: We're working hard to make sure they have water. If we do not, that will delay the project obviously.

MARTIN FLETCHER: So far, no permission from Israel to pipe in enough water. Another problem – roads. This is the only access to Rawabi, a narrow two-lane road suitable for a town of five thousand, not forty-thousand. So far, no permission from Israel to widen it more, or for more access roads.

In times of trouble, Israel could close it with a handful of soldiers. No road in, or out.

BASHAR MASRI: The road issue is a big problem.We have a number of outstanding issues.

MARTIN FLETCHER: The sales video makes Rawabi look fabulous but so far it's just a shell. They need to attract industry, shopkeepers, build schools, create five thousand jobs.

You'd think the PA, the Palestinian authority, which administers matters in the West Bank, would back such an ambitious venture. But not exactly.

Masri carefully chooses his words.

BASHAR MASRI: They are supporting.

MARTIN FLETCHER: Are they supporting financially or morally or what?

BASHAR MASRI: Mostly, 99.9 percent morally. Hardly financially. So we're building the public schools, we're putting the wastewater treatment plant, the water reservoir, the access road to the city, which we did not anticipate on when we started the project.

MARTIN FLETCHER: You expected the Palestinian Authority to do it and to pay for it?

BASHAR MASRI: Absolutely. That is the right thing.

MARTIN FLETCHER: Some Palestinians like parliament member Mustafa Barghouti think that telling Rawabi only as a success story obscures what he says is the larger Palestinian story of occupation and oppression.

MUSTAFA BARGHOUTI: My worry is that there is a certain trend in certain media – encouraged of course mainly by Israel or those who are connected to Israel – mainly to show things are fine, things are okay. Palestinians are normalizing and accepting the system of occupation. And they even have a new city.

That's not, that's not true. This is not the real story.

MARTIN FLETCHER: Unemployment in the Palestinian territories is more than 20 percent. Government salaries are rarely paid on time, or in full. Yet in Ramallah – the Palestinian seat of power about six miles from the new planned city- there's this mall for the Palestinian middle class. Kentucky Fried Chicken. A well-stocked grocery store. And TV on a loop saying: buy in Rawabi, the city of the future.

MAHER ABU MADI: This is our first time in this…we bought it without even seeing it.

MARTIN FLETCHER: Maher and Abeer Abu Madi were introduced to us by Rawabi staff. They will live here with their seven children. Their 3000-square foot apartment cost about $170,000 — expensive by local standards.

MAHER ABU MADI: This is all living room, four bedrooms, three showers, bathrooms.

MARTIN FLETCHER: He is a professor, she has a master's degree and raises their children at home. For them, Rawabi is more than just a town.

ABEER ABU MADI: Maybe it's my dream when I was a kid to – to live this life. So, I, uh, I did not manage to live this life. So I, I dream that my children will grow in this life.

MARTIN FLETCHER: And you're giving them, you're fulfilling that dream.

ABEER ABU MADI: I hope so.

MAHER ABU MADI: It's also to show the world that Palestinians are not only about conflict with Israel. It's not about intifada and throwing stones and terrorism. It's not like that. It's also that we have our kids. We are educated. We have a future and we aim to have our independent state. Our struggle existence in this land is through such projects.

MARTIN FLETCHER: And that's exactly what Masri thinks, too.

BASHAR MASRI: It's a sample of the Palestinian state. And the Palestinian state is a big step towards peace.

MARTIN FLETCHER: We came back after a year and a half to check on the project. Now, construction is going great. They say this would be the largest amphitheater in the east. But as far as people and moving in is concerned, they're one year behind schedule. And the reason is, there's no water.

This is a furnished show apartment. It looks grand and impressive. But still, no water. For close to a year, Israeli officials could not agree to channel water to Rawabi, which slowed down development here.

Then, just a couple of weeks ago, Israeli President Benjamin Netanyahu cut through the red tape and ordered his government to turn on the tap.

So now they're digging, laying pipes to connect the new Palestinian town of Rawabi to Israel's water carrier.

BASHAR MASRI: Now we're in a remobilization mode if you wish, since we got the go-ahead and we've already informed the residents that they can come in in may and receive — do this final settlement and get their apartments.

MARTIN FLETCHER: That's about one year late?

BASHAR MASRI: That's about one year late now because of just the water.

MARTIN FLETCHER: And as for the Abu Madi family, when we called them by phone, Maher said he's desperate to move in. His apartment is fully furnished and as soon as the water is on, he said he'll be among the first group of families to move in.

That should be by June – if all goes according to the new plan.

"First planned Palestinian city nears opening after Israel OKs water Access", 14/03/2015, online at: http://www.pbs.org/newshour/bb/eyes-rawabi-opening-peak-inside-brand-new-palestinian-city/

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❖ Jordan, Israel sign deal on Red-Dead Sea canal project

Israel and Jordan has signed a deal declaring joint administration on a project connecting the Red Sea and the Dead Sea via a canal, according to a report.

The project, which will be financed by the World Bank, has been advertised as a preservation measure for the Dead Sea and alleviation of the water scarcity in the region, said the Amman News Daily report.

It may also depend the already substantial dependence Palestinians have on Israel for access to water resources, it said.

The project aims at stopping the fatal recession of the Dead Sea, while gaining potable water for Jordan, Israel and the West Bank.

Along with a canal connecting the Red and the Dead Sea, a desalination facility has been planned to convert seawater into drinking water.

Meanwhile, the Palestinian Authority will have the chance to sign a separate deal with Israel in the case it wants access to the water provided through the Read - Dead Sea Canal project, said the report.

About 80 million cu m of the planned 200 million cu m will be pumped up from the Red Sea by Jordan will be converted into drinking water.

About 30 million cu m of it will be bought by Jordan and about 30 to 50 million cu m by Israel. The PA will then be able to buy 30 million cu m of water from Israel by signing a separate agreement, it added.

"Jordan, Israel sign deal on Red-Dead Sea canal project", 16/03/2015, online at: http://www.tradearabia.com/news/HEAL_277631.html

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❖ Israel-Jordan Water Deal Is No Way to Save the Dead Sea

AMMONNEWS - In late February, after several years of negotiations, Israel and Jordan signed arguably their biggest bilateral agreement since their historic 1994 peace accord: a deal for shared management of fresh water. The landmark agreement calls for construction of a new desalination plant near Jordan's Red Sea coast, which will distribute purified seawater to parched southern communities in both countries. Meanwhile, several hundred miles to the north, Israel will begin shipping water into Jordan, one of the most water-scarce countries in the world, via a new cross-border pipeline from the Sea of Galilee, a fresh-water lake.

Hailed as a triumph of water diplomacy in a region where neighbors rarely agree on anything, the deal is not without controversy. It includes an ambitious—and some say reckless—multistage plan to pipe water 112 miles from the Red Sea into the Dead Sea, which forms part of Israel and Jordan's shared border and has been receding by more than 3 feet every year. Supporters say this effort will revitalize the historic body of water by improving its environmental health, boosting tourism and industry on its shores and preserving the sea for generations to come. Critics say they are dead wrong.

The pilot phase of the three-stage Red-to-Dead project will see a $300 million to $400 million pipeline transfer 100 million cubic meters of brine—or salt water—from Jordan's new Aqaba desalination plant to an artificially enclosed section of the southern Dead Sea, where the Red and Dead sea waters will be combined and analyzed. If project planners deem the results acceptable both environmentally and economically, the pipeline project will be ramped up significantly over the next several years, eventually pumping roughly 1 billion cubic meters of Red Sea brine into the full Dead Sea basin to raise water levels and in theory secure the sea's future.

There is no question the Dead Sea is in serious trouble, having lost one-third of its original surface area. Huge swaths of dry seabed now sit exposed to the intense desert sun and heat. Natural evaporation has contributed to the problem, but the main culprits are humans, and the pipeline ignores that.

Israelis, Jordanians and Palestinians living in the Jordan River Valley north of the Dead Sea withdraw such large volumes of river water for agriculture, industry and household use that the Jordan—historically the Dead Sea's primary source—sometimes barely reaches the sea, let alone replenishes it.

Exacerbating the problem are the mineral extractive industries that line the Dead Sea's southern shore in both Jordan and Israel. These companies withdraw Dead Sea water, free of charge, to facilitate the mineral extraction process.

Despite its positive press coverage, the pipeline addresses neither Jordan River withdrawals nor the water-hungry—and lucrative—mineral extraction industry. A project that many hail as saving the Dead Sea, in fact, avoids both of the primary causes of its decline.

"What's frustrating is it is being sold as an environmental project to save the Dead Sea, when it's a high-risk environmental program that ultimately could lead to irreversible harm," says Gidon Bromberg, director of EcoPeace, a leading regional environmental NGO formerly known as Friends of the Earth Middle East.

Studies by the World Bank and EcoPeace suggest the Dead Sea, with its unique chemical composition, could suffer from a huge influx of foreign seawater if the pipeline project goes forward to its third and final stage. Transferring Red Sea water into the Dead Sea could lead to stratification over time, with the lighter, less salty Red Sea water essentially floating on top of the heavier, saltier Dead Sea like oil on water. That could one day even threaten tourism, a lynchpin of both Israel and Jordan's economies; visitors seeking to bathe in the Dead Sea's unique minerals would find themselves instead floating around on a surface layer of Red Sea water. The stratification process could also accelerate environmental degradation by possibly triggering destructive algae blooms in the Dead Sea's less salty upper layers.

The Red Sea could also suffer from the pipeline. Removing 2 billion cubic meters from the Red Sea's Gulf of Aqaba, half for desalination and half for the Dead Sea, could interfere with currents and negatively impact the region's coral reefs that anchor coastal ecosystems and bring in key tourism revenue for Egypt, Israel and Jordan.

Hurdles still exist before even the pilot phase of the Red-Dead project can move forward. To date, no one has stepped up to foot the pipeline's bill, deemed too expensive for public financing and perhaps too risky for potential third-party funders wary of building a major pipeline across a seismically active fault zone prone to earthquakes. Reading between the lines, there is a slim chance Jordan may eventually pull the plug on the Red-Dead pipeline. While Israeli media and government have widely championed the project and the broader water-sharing deal, Jordanian media and government have been relatively quiet in the aftermath of the signing.

Saving the Dead Sea is a noble, necessary effort. But rather than subject the dying sea to a risky and unproven water transfer scheme, the far wiser move is to scrap this part of an otherwise impressive and important water-sharing deal for less harmful and more effective alternatives.

Cheaper plans exist for revitalizing and replenishing the Dead Sea in an environmentally sustainable and economically productive way. The water-intensive mineral extraction industries could be regulated and charged for Dead Sea water withdrawals, incentivizing investment in more water-efficient technologies. Farther north, investing in the rehabilitation of the Jordan River and its tributaries, extending the reach of wastewater treatment infrastructure and promoting greater conservation among agricultural and industrial water users would allow the Jordan River to deposit more of its waters directly into the Dead Sea.

There is little doubt these approaches would work; the real question is whether enough political will exists in either Jordan or Israel to enact them. "We're not saying [such measures] will bring the Dead Sea back to its previous height levels —that is no longer realistic," Bromberg warns. "But we can stabilize or dramatically reduce the decline of the Dead Sea for the benefit of future generations."

Sacrifices would have to be made by water users on both sides of the border. But then again, no one said raising the Dead would be easy.

"Israel-Jordan Water Deal Is No Way to Save the Dead Sea",14/03/2015, online at: http://en.ammonnews.net/article.aspx?articleno=28221#.VQaWhI7kfwk

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❖ Red Sea water may not save drying Dead Sea

The Dead Sea could dry up by 2050. Israel and Jordan are planning to develop a pipeline from the neighboring Red Sea to solve the problem - but could this make the situation for the Dead Sea worse?

It was a historic moment: After more than a decade of discussion, Jordan and Israel recently signed an agreement to build a 180-kilometer (112-mile) pipeline channeling water from the Red Sea to the Dead Sea.

The canal aims to give the Dead Sea much-needed water. With high temperatures almost year-round, the quantity of water evaporating is greater than the inflow. As the water evaporates, what remains becomes more saline by the day. According to some experts, Dead Sea water levels are sinking at a rate of a meter per year - and it could completely dry up by 2050.

Diversion for agriculture

The Dead Sea lies in the lowest-elevation valley of the entire globe, and it is 10 times more saline than the world's oceans. The main water source for the Dead Sea used to be the Jordan River, which flows in from the north along the border between Jordan and Israel, passing the Palestinian West Bank.

Beginning in the 1960s, Syria, Israel and Jordan started diverting river water. By now, more than 90 percent of the water is being diverted.

The water is used for irrigation in the arid regions of Jordan and Israel. According to the World Health Organization, Jordan has access to the least amount of water of all countries around the world. About 92 percent of the country is desert, so it depends on river water for agriculture.

Fragile ecosystem, healing mud

Lack of water at the Dead Sea has been affecting the ecosystem there. The Dead Sea is not actually dead, and life there has kept biologists spellbound for centuries.

"Especially where freshwater enters the Dead Sea, life is thriving," says Youval Arbel, deputy director of the Israeli branch of the environmental organization Friends of the Earth. "And there are very interesting organisms, you can find a lot of algae and halobacteria. It's a very delicate environment," he adds.

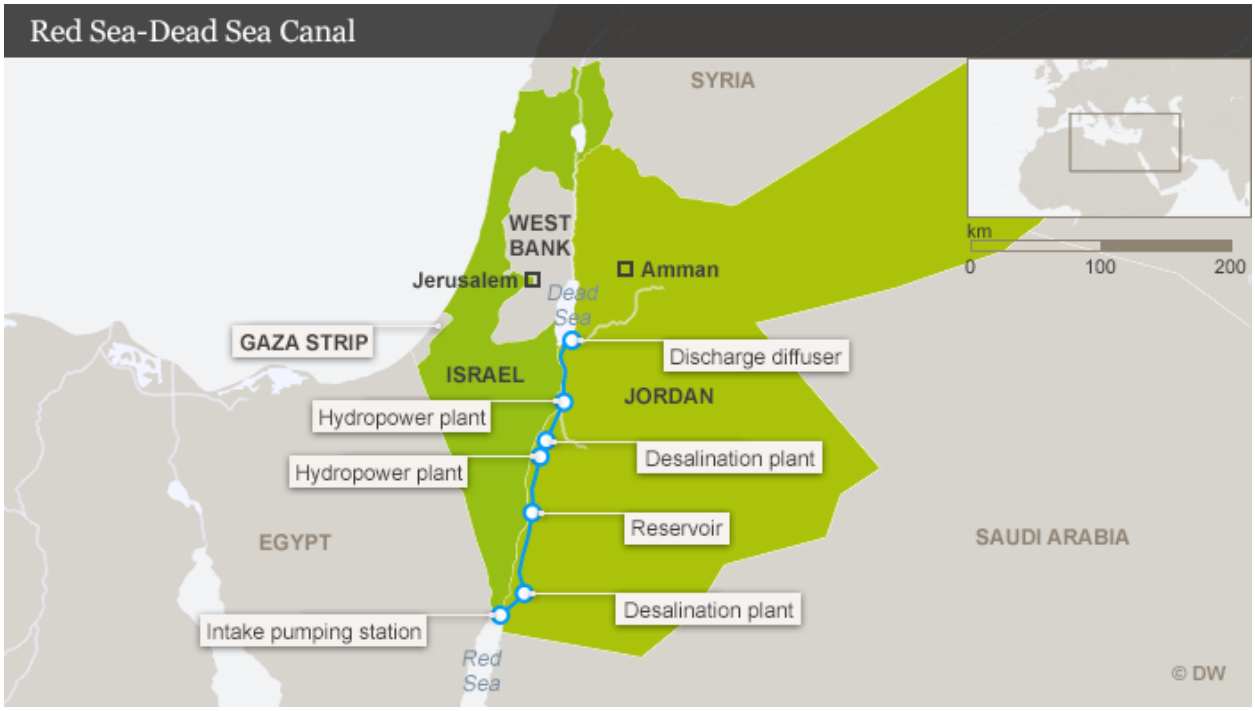
The water is not only extremely rich in salt, but also minerals. The mud on the banks of the sea has been used for healing purposes for centuries, if not millennia. Patients from around the globe travel to the Dead Sea to treat skin diseases like neurodermatitis and psoriasis.

Proposed pipeline

To find a solution to the water problem, Israel, Jordan and the World Bank are investing in a $900-million (847-million-euro) pipeline. According to Jordanian Water Minister Hazem Nasser, 300 million cubic meters (243,000 acre-feet) of water would be pumped annually from the Red Sea. This might increase over time to up to 2 billion cubic meters per year.

After passing through several hydroelectric power plants, some of this water would flow into the Dead Sea - the rest would be channeled via a desalination plant to different regions in Israel, Jordan and Palestine.

But several environmental groups have warned that the project could harm the Dead Sea environment. "The chemistry of the Red Sea is very different to water in the Dead Sea, you cannot simply mix them," Arbel says. He fears that mixing the different water types will generate large amounts of gypsum, which could spoil the delicate balance of the Dead Sea ecosystem.



He also points out that the amount of water that would enter is far too low: "90 million cubic meters of ocean water shall reach the Dead Sea via the canal - that is only about 13 percent of the amount of water that is needed to stop the decline of the water level. Probably the canal will do more harm than help," Arbel told DW.

As an alternative to the pipeline, Arbel suggests tackling the problem at its root: by better managing the Jordan River. If water is used more efficiently, for example by installing modern irrigation systems or recycling wastewater, more of the water could follow its natural path to the Dead Sea.

He also suggests that the mineral extraction industry apply new technologies instead of evaporation for their Dead Sea operations.

Water and conflict

The meaning of the pipeline agreement goes far beyond water: In this conflict-scarred area, the transnational agreement is also hoped to bring peace.

Israel's Energy and Water Resources Minister Silvan Shalom hailed the agreement as a landmark deal between Israel and Jordan. "It's the most significant agreement since the peace treaty with Jordan," he said - and that was signed in 1994.

"Red Sea water may not save drying Dead Sea", 13/03/2015, online at: http://www.dw.de/red-sea-water-may-not-save-drying-dead-sea/a-18284472

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❖ The West Bank Battle For Land ... And Water

On Moshav Na'ama, a big Israeli farm in the West Bank inside the wide Jordan Valley, Inon Rosenblum raises fresh herbs for export.

He hires Palestinians to work the fields and pack the crops. The farm is 300 feet below sea level, a desert climate where irrigation is mandatory. Rosenblum won't say exactly how much water he uses, or exactly where it comes from.

"From wells," he says. "In the mountains." Then he changes the subject.

Water is such a touchy subject here that when a European politician last year brought up disparities between the amounts used by settlers and the amounts available to Palestinians, several Israeli politicians walked out of his speech to parliament.

Sometimes Palestinians take matters into their own hands.

Twenty minutes along a highway from Moshav Na'ama, Eed Khamis serves tea to guests in his living room — a plywood shack in a village of makeshift homes. He was born here in the scruffy desert hills between Jerusalem and the Jordan Valley, part of a Bedouin tribe evicted from Israel in the 1950s.

This encampment now gets water piped in from Israel's national water company. But Khamis says when settlements first cropped up on the nearby hills, water the Bedouin had previously used was diverted.

So they pounded holes in the pipes with nails, he says, and carried the water home. Eventually, Khamis claims, the water company sat down to bargain.

"The Israeli water company said we will give you water, so long as no one makes a hole in the pipe," he says.

"This is a strong victory for us."

But it was a small victory in the political and economic fight for control of Area C.

What's Area C?

The C doesn't stand for anything. It's just one of three categories of West Bank land set up 20 years ago. It was supposed to be a temporary arrangement.

The Israeli military has had ultimate authority all over the West Bank since capturing it in the 1967 war. But under an interim deal in 1995, the Israelis and the Palestinians agreed to set up the different categories of land in the West Bank. The goal was to reach a comprehensive peace agreement within a few years, and these three categories would vanish.

But it hasn't worked out that way. As peace negotiations foundered, the segmented West Bank land and water arrangements have become more entrenched.

Area A consists of Palestinian cities, where Palestinian officials are supposed to have political and security control.

Smaller Palestinian towns and some agricultural land are Area B. Here Palestinians are responsible for everything but security, which is shared with Israeli soldiers.

Area C is the rest. This amounts to 60 percent of the West Bank under full Israeli control. It winds around Palestinian islands of A and B and spreads into stretches of countryside. Israel controls planning, building and destruction.

In the center of the West Bank, Majid Banifadel, 16, walks among the stone, metal and plastic rubble of his home.

About a year ago, Israeli soldiers bulldozed most of the small buildings on a slope below the Palestinian town of Akraba.

"They come with their bulldozers and destroy our life," he says.

Banifadel is part of a traditionally nomadic Arab tribe. Akraba, on the hill above, is designated Area B, but the land where his home stood and the broad green valley where his family herds sheep and goats are in Area C.

It's also part of the 20 percent of the West Bank — all Area C — that, according to United Nations maps, Israel has designated a closed military zone, restricting Palestinian access to the land.

Muffled gunshots come from across the valley.

Banifadel believes they are from soldiers he saw earlier, out training. He heads in that direction, where his herds are grazing — illegally in Israel's view.

Arab Bedouin tribes in the West Bank are heavily affected by restriction in Area C, because they use that land for their livelihood. But Palestinian cities, including Ramallah, and smaller towns are spilling over into Area C as their populations grow.

Israel says controlling Area C is vital for security. Israel has more than 100 Jewish settlements in the West Bank that are fenced. Israel has also put up big red signs on roads leading into Palestinian areas, warning Israeli citizens to stay out for their safety.

But the open agricultural land of Area C is a site of direct conflict. Israelis frequently destroy Palestinian crops.

The struggle over land here is of course political, and it is a factor in next Tuesday's Israeli elections. A prominent right-wing Israeli politician, Naftali Bennett, says it's time to simply annex the West Bank. He doesn't want a Palestinian state.

But backers of a two-state solution to the Palestinian-Israeli conflict say Area C will have to be Palestinian, serving as an economic base for a future state and giving the Palestinians the land needed for a viable state.

Several European nations and the United Nations are investing millions of dollars specifically in Area C to benefit poor Arab communities. They are paying for solar panels on Bedouin homes, putting money into schools and trying to keep Palestinians in the area.

Swedish diplomat Yohan Shar, who represents the first European country to recognize Palestine as a state, said the fields, aquifers and quarries of Area C are vital to Palestinians.

"This is part of Palestine," he says. "This represents agriculture, the exploitation of minerals, and so on. This is the economic base of a Palestinian state."

Transcript

AUDIE CORNISH, HOST:

As Israel prepares for elections next week, NPR is bringing you stories about the land at the center of the conflict between the Israelis and the Palestinians. The Israeli military has occupied the West Bank since 1967. Palestinians are in charge of local affairs in their cities in the West Bank, but most of the land around those cities - some 60 percent of the West Bank - is under exclusive Israeli control. That land is called Area C. It's a rugged landscape where mundane matters like water service take on broader meanings. NPR's Emily Harris has this report.

(SOUNDBITE OF GATE)

EMILY HARRIS, BYLINE: A sturdy metal gate rolls open at the entrance to an Israeli farming settlement in the Jordan Valley. This is part of Area C, the 60 percent of the West Bank under exclusive Israeli control. The Israeli soldier on duty points us to the greenhouses.

INON ROSENBLUM: My name is Inon Rosenblum. I live here in Moshav Na'ama.

HARRIS: Rosenblum takes us inside his herb packing room. He opens the walk-in fridge.

Freezing.

ROSENBLUM: Smell - squeeze one of the leaves and smell.

HARRIS: It's tarragon with a licorice smell. Rosenblum grows basil, mint and rosemary, too. Outside in the fields, it's warm.

Usually when I'm here, the hills that are in front of us right now are brown, yellow and dry.

ROSENBLUM: Yellow and dry, yellow and dry.

HARRIS: But right now.

ROSENBLUM: In a month from today they'll be dry, but now it's in a purple color like this. It's - wow.

HARRIS: A wet winter has colored the landscape purple and green, but this is a desert. We're below sea level and Rosenblum's herbs depend on irrigation. He won't say how much water he uses.

Where do you get the water?

ROSENBLUM: From wells in the mountains.

HARRIS: How much water do you need every year?

ROSENBLUM: We need enough. We need a lot. Yeah, I know, I know exactly how much. I show you another thing.

HARRIS: The United Nations humanitarian wing wrote a few years ago that Israeli settlers get several times more water per capita than Palestinians in the West Bank. Israel disputes this. In Area C, some Palestinians take matters into their own hands. Twenty minutes back toward Jerusalem, we turn off a highway onto what hardly seems like a road.

EED KHAMIS: (Foreign language spoken).

HARRIS: We're with Eed Khamis. He is part of a Bedouin tribe, traditionally desert nomads. In this permanent Bedouin camp, he shows us a big black plastic water tank next to a school built of mud and tires.

So where does this water come from?

KHAMIS: (Foreign language spoken).

UNIDENTIFIED WOMAN: Three kilometers from here.

HARRIS: It's piped in from the Israeli water company. Khamis has a story about that.

KHAMIS: (Foreign language spoken).

HARRIS: He says Israel diverted water to nearby Jewish settlements when they were built in the 1980s.

KHAMIS: (Foreign language spoken).

HARRIS: So the Bedouin hammered holes in the pipes until - as Khamis tells it - the water company hooked them up.

You're laughing at that story. You think it's, for you, a victory. Would you call it a victory?

KHAMIS: (Foreign language spoken).

UNIDENTIFIED WOMAN: This was a strong victory for us.

HARRIS: Khamis invites us into a plywood shack that serves as his living room. Inside sits a solar panel salesman. Khaled Salahat says he is installing 100 solar units here, paid for by a European aid group.

KHALED SALAHAT: They start thinking how to make the life easy for those people in order to keep them in this area.

HARRIS: The Europeans are encouraging Bedouins to stay here because they support a Palestinian state as the way to end the Israeli-Palestinian conflict. Arabs' physical presence on this land helps Palestinians keep their claim, just as Jewish settlements, including some right up the hill from here, help Israelis stake theirs. Israel says it needs Area C as a security buffer from potential Arab enemies and to protect hundreds of thousands of settlers. Palestinian Prime Minister Rami Hamdullah says the complete Israeli control of this part of the West Bank known as Area C limits Palestinian development.

PRIME MINISTER RAMI HAMDULLAH: It means we cannot invest, even we cannot extract out water. Imagine - if we're going to have, and I hope we will, independent Palestinian state, this area is very important.

HARRIS: Of course land is political here, but it's also economic power. The World Bank estimates if the Palestinian Authority could develop Area C, it could stop depending on international aid. Right now one of the best economic options for a Palestinian is to work for an Israeli. Back in the Jordan Valley, Palestinian employees on Inon Rosenblum's farm cut and pack fresh basil for supermarkets overseas. Emily Harris, NPR News, the Jordan Valley. Transcript provided by NPR, Copyright NPR.

"The West Bank Battle For Land ... And Water",14/03/2015, online at: http://wesa.fm/post/west-bank-battle-land-and-water

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❖ Lebanon water companies given 3 months to clean up

BEIRUT: Unlicensed water companies have three months to ensure their products are safe to drink, Health Minister Wael Abu Faour said Wednesday, urging them to obtain government certificates.

"We will not allow the sale of polluted water to the public," Abu Faour said, indicating that the ministry intended to shut establishment who continued to violate safety codes after the deadline.

He also rejected accusations that the measure was depriving breadwinners of their income.

"We are keen on preserving the living of all Lebanese, especially the poor, but we will not compromise in issues related to people's health," Abu Faour said in a news conference from his ministry.

"There should be a solution to guarantee the safety of the people while safeguarding the livelihood of employees of water companies," he added.

He also explained that a number of unlicensed companies were selling good quality water, but the more well-known companies were dominating the market.

He said new requirements were imposed on water companies, including securing a temporary health certificate from the ministry.

Under the temporary agreement, irregular water companies have three months to rectify their operations, and water stations will be checked and inspected regularly.

http://www.dailystar.com.lb/News/Lebanon-News/2015/Mar-11/290395-lebanon-water-companies-given-3-months-to-clean-up.ashx

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Health, interior ministries to improve drinking water

BEIRUT: Health Minister Wael Abu Faour and Interior Minister Nouhad Machnouk agreed Monday to increase cooperation between their ministries to improve the monitoring of drinking water.

The decision was taken due to the worsening quality of potable water supplies across Lebanon. Contamination from sewage, a problem exacerbated by a rapid increase in the country's population, has contributed to the spread of disease.

The Health Ministry will train municipality workers to monitor water sources and gather samples from water networks, which will be sent to specialized laboratories for testing. With funding from the EU and in cooperation with the World Health Organization and UNHCR, the ministry will establish laboratories for testing water.

"Lebanon water companies given 3 months to clean up", 13/03/2015, online at: http://mideastenvironment.apps01.yorku.ca/2015/03/lebanon-water-companies-given-3-months-to-clean-up-daily-star/

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❖ Norwegian firm seeks Israeli partnership in wastewater treatment, desalination barges – Jerusalem Post

EnviroNor operates floating treatment plants to offer a cheaper solution to purifying the globe's water supply.

A Norwegian company aiming to convert secondhand oil barges into floating desalination and wastewater treatment plants is recruiting Israeli expertise to furnish the water-processing technology necessary for the ships.

According to Sigmund Larsen, the founder and CEO of EnviroNor, the floating treatment plants offer a cheaper solution to purifying the Earth's water supply, particularly in regions threatened by water scarcity and where land space for such facilities is lacking. Although, as a Norwegian firm, EnviroNor can bring to the table expertise in the maritime industry and know-how from the country's strong oil and gas industry, such as undersea pipeline infrastructure, Israeli proficiency in both desalination and wastewater technologies would be crucial to the project's development, Larsen explained.

"What we want to do is to combine those two pillars with Israeli knowledge," Larsen told The Jerusalem Post, during an interview in Tel Aviv interview on Tuesday. "Norway and Israel can collaborate more both on a political level and industrial level."

Larsen, in Israel for the past few days, has met with National Infrastructure, Energy and Water Minister Silvan Shalom, as well as representatives from his ministry; the Water Authority; the Economy Ministry; Mekorot national water corporation; and other water companies.

"It's cheaper to convert a ship to desalination or wastewater treatment plant than to do it onshore," he said, noting that the planning process in most countries is significantly shorter for offshore infrastructure.

The ships, he said, can hold quite sizable facilities, capable of purifying as much as 500,000 cubic meters of wastewater daily – to accommodate about 2.5 million people – or desalinating as much as 200,000 cubic meters of seawater daily.

"The environmental advantage here is that we are reusing a vessel," he said. "A ship is like a bottle of milk – it expires after 20 to 25 years and after that we send it to the beaches of India and Bangladesh for scrapping.

When we can extend the life of a ship from 25 years to 60 years, that is quite a big contribution to the environment."

While the floating facilities require energy to operate, a portion of the activity of the wastewater treatment plants can occur through biogas power generated through the methane extracted from the wastewater purification process itself, Larsen explained.

Desalination, he acknowledged, cannot, at this point, be considered an environmentally friendly process since it requires a lot of energy from sources such as liquefied natural gas or fuel from oil sources.

In any country where EnviroNor would park one of these barges, the company would aim to bring value back by training the local population in areas of employment related to the ship's operations, Larsen said. The country would pay a fixed daily fee for the barge's operations, as well as a charge depending on how much purified water they use, he explained.

EnviroNor is close to closing on an agreement with Mozambique to serve as a pilot site for the first of the wastewater treatment barges, Larsen said.

The first barge should be up and running by the end of 2017, he estimated.

The company has envisioned four types of barges to fit specific needs. The first, the "Reliever," treats wastewater piped to it from shore and then releases the treated wastewater into the sea according to the environmental guidelines of the given country, Larsen said. The Reliever can replace a medium-sized processing plant and can be particularly beneficial as a backup when an onshore facility is under repair.

The second barge is the "Changemaker," a more permanent installation that delivers treated wastewater back to shore for use in either agriculture or for drinking purposes when treated to a

tertiary level. The Changemaker, Larsen said, is suitable when land area is limited for such treatment facilities onshore.

On this ship, biogas extracted from the wastewater treatment can be used to power about 25 to 40 percent of the process, he explained.

The "Water Factory," meanwhile, is a smaller floating unit that can produce drinking water from river water and is particularly useful in areas where drinking water is scarce, Larsen said.

The fourth unit, thus far, is the "Emergency Relief Vessel," which can convert seawater into potable water in areas hit by catastrophe and are in dire need of drinking water.

While EnviroNor has designed the floating mechanisms in which to house these processes, Israeli expertise in desalination and wastewater treatment technologies could help see the project to fruition.

"My purpose here is to see if we can have a collaboration between Norway and Israel, to have access to the best water technologies in the world," Larsen said. "If we can do that jointly, nothing will be better."

The EnviroNor project has been listed by the Norwegian DNV GL environmental infrastructure classification society as an "extraordinary innovation project," and also is receiving support from Innovasjon Norge – the Norwegian government's development instrument for Norwegian enterprises and innovations.

"Norwegian firm seeks Israeli partnership in wastewater treatment, desalination barges", Jerusalem Post, 13/03/2015, online at: http://mideastenvironment.apps01.yorku.ca/2015/03/norwegian-firm-seeks-israeli-partnership-in-wastewater-treatment-desalination-barges-jerusalem-post/

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❖ Akron, Ohio to partner with Israeli wastewater treatment firms

For three years, the Advanced Waste Water Treatment Demonstration Project will bring cutting edge water technologies developed by Israeli academics.

Aiming to further collaboration with Israel and solidify its position as a wastewater treatment hub, the city of Akron, Ohio, is partnering with a consortium of Israeli private and public industry leaders to host a pipeline of water purification projects.

For three years, the Advanced Waste Water Treatment Demonstration Project will bring cutting edge water technologies developed by Israeli academics, government firms and private enterprises to the city of Akron, which will act as a testbed for commercializing these products, a statement from the Akron Municipality said.

"This project will create new jobs and investment through business attraction, further our water initiative, and place Akron in the forefront of water innovation and technology," Akron Mayor Don Plusquellic said in the statement on Monday. "We are being entrusted with an exclusive platform and pipeline for Israeli companies to demonstrate innovative technologies and new solutions for water treatment worldwide."

Akron, Plusquellic explained is an "ideal partner" for the project due to its central North American location.

This positioning will enable the city to house demonstration activities and "help companies commercialize solutions more efficiently and access the US market," he said.

The city has previously joined forces with members of the Israeli water sector by partnering with the municipal water corporation in Netanya to develop and commercialize certain water solutions, as well as by cooperating with the Mekorot national water company to promote bilateral water collaborations, Plusquellic said.

The Advanced Waste Water Treatment Demonstration Project will house the technologies of five Israeli water firms, Oren Blonder, vice president of sales & marketing at Advanced Mem-Tech Ltd.,

told The Jerusalem Post on Wednesday. In addition to Mem-Tech, which has led this project, four other companies will be selected to house their innovation at the Akron site, Blonder said.

Financing for the project is coming from both the city of Akron and the companies involved, and the partners are in the process of acquiring additional funding from outside sources, according to Blonder.

Technical support for the project is coming from Mekorot, the Technion- Israel Institute of Technology and the Israel Export Institute.

Blonder stressed that he hopes to see the project "create a local demonstration platform" to attract clients and partners.

Equally crucially, he added, will be the receipt of "real-time feedback from the market so we can modify our project to the specific needs of the local market."

"Akron, Ohio to partner with Israeli wastewater treatment firms", Jerusalem Post, 13/03/2015, online at: http://mideastenvironment.apps01.yorku.ca/2015/03/akron-ohio-to-partner-with-israeli-wastewater-treatment-firms-jerusalem-post/

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❖ Hydro diplomacy on the Nile

Water-sharing deal has brought conflict between Egypt and Ethiopia over massive hydroelectric dam closer to resolution.

A long-simmering water conflict between Ethiopia and Egypt has moved a step closer to resolution, after the countries' foreign ministers announced last week they had reached a preliminary agreement on sharing Nile water.

The deal, which still needs to be approved by the heads of state of Egypt, Ethiopia and Sudan, appears to be an important breakthrough, observers say - although details of the agreement have not yet been made public.

"This is significant in my view," Mwangi Kimenyi, a Brookings Institute fellow who co-authored a book on the need for a new legal regime on sharing Nile water, told Al Jazeera. "Any development in the sharing of Nile water that is based on negotiations between the stakeholders is a positive development."

The deal is important because it appears to mark a move away from Egypt's historical insistence on maintaining colonial-era agreements on water rights.

Last week's meetings were the latest in a series of diplomatic efforts to resolve a conflict that has at times escalated to threats of war between two countries viewed as anchors of stability at either end of the Nile: Egypt thirsty for water, Ethiopia hungry for economic development.

The foreign ministers and water ministers of Egypt, Ethiopia, and Sudan met in Khartoum last Tuesday for diplomatic and technical discussions over a large dam Ethiopia is constructing over a Nile tributary.

On Friday, Sudanese Foreign Minister Ali Karti told reporters: "A full agreement has been reached between our three countries on the principles of the use of the eastern Nile Basin and the Ethiopian Renaissance Dam."

The Grand Ethiopian Renaissance Dam (GERD) being built across a major Nile tributary, the Blue Nile, about 40km from the Sudanese border, is expected to produce up to 6,000 megawatts of electricity during peak times, making it Africa's largest hydroelectric scheme.

Ethiopians believe the dam will transform their country, where only around one-third of the population has access to electricity, into a major electricity exporter to East Africa - raising living standards, spurring economic growth and leaving behind a history of drought and famine.

Ethiopians have invested heavily in the dam, buying government bonds to help raise the nearly $5bn needed and becoming advocates for its potential benefits.

"Failure in construction of the dam will mean a failure for Ethiopia," said Belachew Chekene Tesfa, an Ethiopian engineer based in the United Kingdom who works in the field of renewable energy.

Tesfa, a founder of Ethiopian International Professional Support for Abay (the Ethiopian name for the Nile), was inspired to form the group to promote the dam. "By building this dam, we will develop this country," he said.

Egypt, meanwhile, is concerned about the downstream effects. Heavily reliant on the Nile, Egyptians have long treated the river as a birthright, and for decades Egypt blocked upstream developments, relying on a "historic" right to Nile water codified in colonial-era treaties.

With a growing population and a water-hungry agricultural economy, Egypt will need an extra 21 billion cubic metres of water per year by 2050, on top of the 55 billion cubic metres it currently receives, Egypt's National Planning Institute believes.

Egypt has struggled to adapt to the new power dynamic as a determined Ethiopia has disregarded the colonial agreements - widely seen by upstream states as unfair for not including them - and proceeded with dam construction, irrespective of Egypt's objections.

The "game has changed. Egypt is playing catch-up", independent Nile expert Alan Nicol told Al Jazeera.

Egypt's opposition to the GERD - which, under former President Mohamed Morsi, escalated to threats of war - has softened since former army chief Abdel Fattah el-Sisi was elected president last May. On his first overseas trip as president, Sisi met Ethiopian Prime Minister Hailemariam Desalegn at the African Union summit in Malabo, Guineau Bissau last June.

Newly readmitted to the AU, Egypt achieved a further breakthrough when Ethiopia agreed to restart talks on the GERD, which had been stalled for months, and to form a bilateral committee on issues of mutual concern.

Further visits by Egyptian officials to Ethiopia followed. At a time when Egypt has been preoccupied with a low-level internal insurgency in Sinai, a stumbling economy and the threat of a failed state on its doorstep as Libya implodes, these visits pointed towards a renewed commitment to a diplomatic solution.

With the Nile's balance of power shifting towards Ethiopia, it has been incumbent on Egypt to overcome the mistrust resulting from decades of obstructive policies towards upstream Nile states.

A western diplomat in Cairo, who spoke on condition of anonymity, said that until recently "the Ethiopians have been playing with time" and did not feel pressured to reach a deal, but in the long term, "it wouldn't be in their favour to build and not give any reassurance to Egypt".

Last week's announcement will allow Egypt to take home a victory, necessary after long claiming the upstream Nile development was an existential threat.

"It's kind of face saving," said Salman Salman, a Sudanese water law expert, who added: "now they realise the need to move beyond face saving to the real issues."

Others say the actual import of the agreement will depend on whether it includes concrete figures for the utilisation of the Nile's water. "I am hoping that the agreement will include actual data on the volumes of water that Ethiopia can use. That would be real evidence of a good arrangement," Kimenyi said.

Salman said he expected the deal to include an agreed period of time during which Ethiopia would fill the GERD's reservoir. Filling it more slowly would reduce the downstream impact on Egypt, he said. He also speculated that the deal could include an agreement for Ethiopia to export electricity to Egypt.

With rising demand for water, a cooperative approach between the Nile riparian states is the only viable long-term solution, Nicol added. "Cooperation is the only way to prepare effectively for the Nile's future ebb and flow."

"Hydro diplomacy on the Nile", 10/03/2015, oline at: http://www.aljazeera.com/news/2015/03/hydro-diplomacy-nile-150309092540029.html

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❖ On the River Nile, a Move to Avert a Conflict Over Water

Ethiopia's plans to build Africa's largest hydroelectric dam on the Nile have sparked tensions with Egypt, which depends on the river to irrigate its arid land. But after years of tensions, an international agreement to share the Nile's waters may be in sight.

For thousands of years, Egyptians have depended on the waters of the Nile flowing out of the Ethiopian highlands and central Africa. It is the world's longest river, passing through 11 countries, but without its waters the most downstream of those nations, Egypt, is a barren desert. So when, in 2011, Ethiopia began to build a giant hydroelectric dam across the river's largest tributary, the Blue Nile, it looked like Egypt might carry out its long-standing threat to go to war to protect its lifeline.

But last weekend, all appeared to change. Ministers from Egypt, Ethiopia, and Sudan agreed on the basis for a deal for managing the Grand Ethiopian Renaissance Dam, which would be the largest hydroelectric dam in Africa. So is peace about to break out on the River Nile? Longtime Nile observers are warning that a dispute that has lasted for a century may not end so easily.

Some 8,000 Ethiopian construction workers are currently at work building the Ethiopian dam at a site close to where the Blue Nile crosses into Sudan, before joining the White Nile and heading on to Egypt and the Mediterranean Sea. The scheme currently is about a third completed. Ethiopia says the dam is essential to its own economic development, while Egypt has called for construction to halt.

It looked like a stalemate until Sudanese foreign minister Ali Karti emerged from a week of talks with his counterparts from Ethiopia and Egypt in Khartoum to declare that "a full agreement has been reached ... on the principles of the use of the Ethiopian Renaissance Dam." The agreement would be submitted to their respective heads of state for approval, he said, calling it "the beginning of a new page in relations between our three countries."

So far, so good. A water war seemed to have been averted. But Karti gave no further details of what the agreement contained. And analysts involved in the negotiations point out that secretive land deals for irrigation projects in Sudan could scupper the new accord.

It is hard to overstate the importance of the Nile to Egypt. The river is the only source of water for 40 million farmers irrigating their fields in a desert nation. Turbines in Egypt's own barrier, the High Aswan dam, also generate electricity for portions of the country.

But Egypt is at the bottom of the river. There are ten other nations further upstream, of which the largest is Ethiopia. A colonial-era treaty gives Egypt most of the river's flow. But since it gives no upstream nations other than Sudan any share at all, those nations don't recognize it.

A rival power with an even bigger dam upstream could be disastrous for Egypt, which, in the past, has threatened to go to war if Ethiopia ever barricaded the Nile. The threat worked until 2011. Then, at the height of the chaos of the Arab Spring, when the Egyptian government was preoccupied with its own survival, Ethiopia without warning began building what is set to be the world's eighth largest hydroelectric dam. The question then became: How would Egypt respond?

The Grand Ethiopian Renaissance Dam (GERD) will flood 1,700 square kilometers of forest and bush close to Ethiopia's border with Sudan. The dam would more than double the country's electricity generating capacity, leaving spare power to be exported to neighbors on a planned east Africa power grid. At a cost of almost $5 billion, it is a huge national endeavor for a poor country. To make the dream come true, civil servants in Ethiopia are being encouraged to devote at least a month of their wages every year to buying bonds to help fund the project.

"GERD is part of a larger social movement against poverty," says Mulugeta Gebrehiwot, a former military and political leader in Addis Ababa, who is now a fellow at the World Peace Foundation at Tufts University. "It has a symbolic impact in demystifying the fight against poverty – even a shoeshine boy can take part in building it by contributing coins and buying bonds that start at five U.S. dollars."

Some of the hopes may be far-fetched. The dam will have turbines capable of generating 6,000 megawatts of power, making it Africa's largest hydroelectric project. But outside experts believe it will rarely be able to generate so much, because there will not be enough water flowing in the river. One said: "They will only be able to get 6,000 MW for 1 percent of the time; 3,000 MW would have been better."

The Ethiopian government says the dam is no threat to Egypt. It is a hydroelectric dam, designed to catch water and pass it on downstream through turbines. The country has no plans to divert water for irrigation, the government says. But one American expert on the Nile – who spoke last week on condition of anonymity, since he was advising all sides in the talks – warned that Egypt has two reasons for concern.

The first concern is short-term: What happens while the reservoir behind the dam is being filled? The dam will be able to hold back more than a year's flow of the Blue Nile as it leaves Ethiopia. In theory, while filling the reservoir for the first time, Ethiopia could cut off the entire flow for that year. Even filling over five years would significantly impact Egypt, especially if they are dry years.

Yale Environment 360 has learned that the preliminary agreement reached in Khartoum last week sets rules for how quickly Ethiopia can fill the dam. It also appoints independent consultants to arbitrate on key technical issues. A previous international panel of experts, appointed with the approval of Ethiopia, had reported in 2013 that there were numerous gapsin the hydrological analysis of the impact of the dam downstream.

The second concern for Egypt is that the dam will allow Sudan to massively increase the amount of water that it can take out of the river for irrigation. This is because most of the Blue Nile's flow comes in a few weeks of the year, after monsoon rains in the Ethiopian highlands. Sudan's own dam on the Blue Nile, the Roseires dam, is small and only provides water for a few months, says Alex de Waal of the World Peace Foundation, who is an expert on Sudanese hydro-politics. But the Ethiopian dam will deliver a year-long flow downstream through its turbines and across the border. With that, Sudanese farmers will be able to abstract water for year-round irrigation of crops. "The Sudanese government is already selling land leases for new farmland that will be irrigated when the Grand Renaissance Dam is completed," says de Waal.

If that happened, less water would end up flowing through Sudan and on into Egypt. That would

mean less irrigation water for Egyptian farmers and less hydroelectricity for its cities. It is unclear whether the new agreement made last week addresses this issue.

The disputes between Egypt, Sudan, and Ethiopia over the waters of the Blue Nile are only part of the problem on the Nile. There are 11 nations along the river's banks, but no agreement on sharing its waters. The only treaty was created by the British when they still held sway in the area. The 1959 Nile Waters Agreement allocated 55.5 cubic kilometers to Egypt, 18.5 cubic kilometers to Sudan — and none to anyone else. Unsurprisingly, those upstream nations excluded from the share-out do not accept the validity of the treaty.

In 2010, five of them — Ethiopia, Kenya, Uganda, Rwanda, and Tanzania — signed the Entebbe agreement, calling for a redistribution of the waters to include them. Burundi later also joined. But Egypt and Sudan rejected the call. (Apart from Ethiopia, all these nations are along the river's second major tributary, the White Nile. This smaller, though longer, tributary rises in the highlands of central Africa, before collecting in Lake Victoria and flowing north through South Sudan to Sudan, where it joins the Blue Nile at Khartoum.)

These upstream countries see Egypt taking the great majority of the Nile's flow. In fact, Egypt currently takes even more water than it is entitled to under the 1959 agreement. This is because Sudan, having never built enough dams to capture its allocated flow, takes only 12.5 cubic kilometers, or two-thirds of its entitlement. Every year, Egypt tops up its official entitlement by taking the other third, which amounts to 6 cubic kilometers. But, thanks to the Renaissance dam, Sudan could soon be abstracting its full entitlement and potentially much more. So Egypt's days of relying on most of the Nile's water reaching its territory could be numbered.

But as the most populous nation in North Africa, Egypt won't give up easily. And here a new actor joins the story: the new state of South Sudan.

When the 1959 treaty was signed, Sudan was a single country. But in 2011 it divided in two. The new state of South Sudan occupies a long stretch of the White Nile. Yet bizarrely, when the two countries divided, no mention was made of whether or not South Sudan should get a share of the

1959 treaty rights to the Nile's flow. "The cooperation agreements between Sudan and South Sudan covered just about everything, but not the Nile waters," says de Waal.

So Egypt has spotted a chance. Last November, it signed an agreement with South Sudan "to develop water resources in the South Sudan state and a joint cooperation strategy that would preserve the historic right of Egypt." This is being interpreted as encouraging South Sudan to assert its entitlement to a share of the Nile, which Egypt would then buy from the new nation.

Central to the plan, according to de Waal, is reviving an old engineering project to increase the flow of the White Nile by diverting it away from the Sudd swamp in South Sudan. The Sudd is one of Africa's largest wetlands and a conservation jewel, rich in crocodiles and hippos. But from its shimmering surface, covering 30 times the area of the Florida Everglades, an estimated four cubic kilometers of water evaporates each year.

Back in the 1970s, engineers started digging a 260-kilometer canal to bypass the swamp and "save" the water. Digging of the Jonglei Canal was abandoned in 1984 after rebels from South Sudan attacked the contractors' camp. The local Dinka people said the canal cut them off from dry-season pasture in the Sudd. The canal became a central issue in the long civil war that eventually ended in South Sudan's independence in 2011. But now Egypt wants to join with the South Sudan government to complete the canal.

While nations argue about who should have what proportion of the Nile's flow, it is unclear how much flow there will be in the future. Climate change could drastically change its flow. But climate modelers cannot figure out how. The Intergovernmental Panel on Climate Change has reported that different model projections for the Nile for later this century range from 30 percent more water to 78 percent less.

But for the moment, that remains a sideshow. For the good news is that after years of saber-rattling by his predecessors, Egypt's new president, Abdel Fattah el-Sisi, suddenly seems intent on reaching an accommodation with Ethiopia over the Nile. If he is serious, it could open up the prospect of a new, comprehensive agreement on sharing the waters of the Nile among all 11 nations along its

banks. But if he is not, then the filling of the reservoir behind Grand Renaissance Dam, which is likely to begin sometime before the end of the decade, could be the most dangerous flashpoint yet on a lawless river.

"On the River Nile, a Move to Avert a Conflict Over Water", 12/05/2015, online at: http://e360.yale.edu/feature/on_the_river_nile_a_move_to_avert_a_conflict_over_water/2855/

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❖ Interconnecting East Africa

Mr. Mekuria Lemma strategy and investment head at the state owned Ethiopian Electric Power (EEP) to discuss the origins of the East African Power Pool (EAPP),

Electric power is an ubiquitous daily necessity, for a country's day to day activities and economic development. It also can act as an economic integrators in an unstable part of the world, as well creating people to people linkages. Elias Gebreselassie of newBusinessEthiopia.com sat with Mr. Mekuria Lemma strategy and investment head at the state owned Ethiopian Electric Power (EEP) to discuss the origins of the East African Power Pool (EAPP), it's current status, the challenges it's faced and what in medium future term he sees as Ethiopia's contribution being in the Power Pool.

newBusinessEthiopia.com: Could you start by introducing a bit about your role and introduction about East African Power pool?

Mr. Mekuria: My role is looking at projects that fits with the country's development plans and allocate investment opportunities for different projects. My team has responsibilities for the EAPP which covers 13 countries about the interconnection of power via the grid of the various countries, and as part of that Ethiopia's main strategy is interconnecting neighboring countries.

newBusinessEthiopia.com: What made Ethiopia help create EAPP?

Mr. Mekuria: It's the experience of the world that all resources aren't allocated in all places. So resources differ each other in position, scale and so on. One kind of resource is abundant in one country or scarce. So proper allocation of resources from one country to another is good for economical development of country. EAPP is based on transmitting from the cheapest to the most expensive areas, the sellers get advantage from that, they will earn foreign currency by selling power, the recipient countries have an advantage using these cheap resources as economic development. So the basic bottom line is allocation of resources from the abundant area to the scarce area, and from the cheapest to the most expensive area.

newBusinessEthiopia.com: What's the current status of EAPP?

Mr. Mekuria: EAPP has done an accord for the interconnection. They've made even testing of pilot interconnection, with financers, donors' agencies. The main focus of the power pool is establishing the market opportunity, market place and the dispatch centers and regulators at the centre and to distribute power with various countries. The oldest interconnection in East Africa is the Uganda-Kenya interconnection, although so far the flow is minimal. Recently Ethiopia has interconnected with Djibouti and Sudan, with the Kenya interconnection under construction stage with completion date set for 2018. At the same time The Kenya-Tanzania interconnection with be completed soon, eventually connecting it with Ethiopia also.

newBusinessEthiopia.com: Ethiopia and DRC are the two countries in EAPP, with the most electricity generation potential. How do you rate Ethiopia's performance when compared to DRC?

Mr. Mekuria: We're moving aggressively in the power sector development in general, we're looking at inwards at what scale we're moving, because our demand is growing tremendously at annually 35 percent annum with expectations for further increase. With this plan we've done a 25 year power master plan, and in this we've identified the share of domestic consumption and what we'll be for foreign consumption.

in the GTP I we're constructing almost 10,000 MW of energy, during GTP III we expect it to grow to 15,000 MW, and by 2023 we expect it to reach it to 25,000 MW capacity for both domestic and foreign consumption. If we look at DRC from just one river the Inga, they can generate 45,000 MW of electricity, the whole of Ethiopia's hydro potential.

But it's implementation isn't a simple task, it needs huge investments, so if you subdivide it in different phases, the projects' cost effectiveness will be in question So, it will take time to utilize it's maximum potential. So, at this time we can say the best candidate to be the main hub of the interconnector of the EAPP, we're ready for that.

newBusinessEthiopia.com: How does the CRGE match up with the goals of the EAPP?

Mr. Mekuria: As you know we have CRGE, which specifically focuses on the development of renewable green energy strategy, for the purpose of the backup of the system, there will be a small portion of non-renewable, non-green energy sources but this is expected to be about two percent of Ethiopia's power source. We're focusing on CRGE, as renewable energy being its main component.

newBusinessEthiopia.com: How do you see power interconnection boosting regional integration?

Mr. Mekuria: It's actually boosting power interconnection, because after interconnecting with power, countries friendship becomes strong as you communicate hourly with the interconnector. This creates economic balance, like for example with our sea outlet Djibouti, as they provide the port and we provide the power, giving mutual benefit. Take for example Kenya, although we haven't connected at a larger level, some border towns of Northern Kenya are already electrified from the Ethiopian side up to 20kms inside Kenya. This is because it's better to get light at the Kenyan side, then the surplus power flowing back to the Ethiopian side , and it helps in the stabilization of the relationship between countries.

newBusinessEthiopia.com: What are the challenges and successes EAPP has faced so far?

Mr. Mekuria: The challenge of the Power pool capacity, EAPP is a new concept even for Africa, with the South African power pool may be the only other in the African continent realizing its potential. So you might not get capable human resource to make its fruition. So the basic problem is the capacity of human resource, besides the east African power pool many donors and financiers are here to help the system on interconnection in the east African region, so we have a limited capacity to realize it.

newBusinessEthiopia.com: What the medium term future of EAPP, vis a vis Ethiopia's role?

Mr. Mekuria: The Medium future I will say is the East-South corridor in East Africa would be the first target of the EAPP, meaning Ethiopia-Kenya interconnection, -Kenya-Tanzania, Kenya-Uganda-Rwanda-Burundi interconnection. In 2018 the Ethiopia- Kenya-Tanzania will be realized, on a bilateral basis we already have signed agreements with Burundi and Rwanda. So far the Uganda-

Power line is limited, 70 MW only flowing between the two countries to implement that. Otherwise we should start again at a larger scale to interconnect all the areas of the western part of the EAPP. This will be the quickest one. We also have under feasibility stage the second line of the Ethiopia-Sudan extra-high voltage, the Ethiopia- Djibouti extra-high voltage.

"Interconnecting East Africa",11/03/2015, online at: http://newbusinessethiopia.com/index.php/component/k2/item/254-interconnecting-east-africa

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❖ Abengoa Desalination Plant to Supply Water to 500,000

(Bloomberg) -- Abengoa SA, a Spanish company that converts biomass into biofuels and produces drinking water from seawater, started work on a desalination plant in Agadir, Morocco, that will supply water to 500,000 people in the area.

The Seville-based energy and environment company said that the plant when operational will provide 100,000 cubic meters a day of potable water using ultrafiltration pre-treatment and reverse-osmosis technologies to purify the salt water. About 82 million ($86 million) in financing was arranged with local banks for the public-private partnership project, it said.

The capacity of the plant 45 kilometers (28 miles) from Agadir, the largest in the region, may also double later, Abengoa said in a statement. With works including power lines and solar projects, Abengoa is developing the world's biggest solar-powered desalination plant at Al Khafji City in Saudi Arabia, a $130 million facility that will desalinate 60,000 cubic meters of seawater each day.

"Abengoa Desalination Plant to Supply Water to 500,000", 11/03/2015, online at:
http://www.bloomberg.com/news/articles/2015-03-11/abengoa-desalination-plant-to-supply-water-to-500-000

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❖ The Current Of Discord On The Mekong

Trouble may be brewing on the Mekong. The cumulative socio-political and environmental impact of dams on the Mekong raises serious cause for concern. There is a race to the bottom to secure economic growth from a burgeoning hydropower boom in Laos, Cambodia and Vietnam. Meanwhile, China's increasingly dominant control of water to the north is causing problems with its neighbours.

The dams will put at risk the food security and livelihoods of tens of millions of people — especially in Cambodia's lowlands and Tonle Sap Great Lake, the world's most productive inland fishery, and in the Mekong Delta, Vietnam's rice bowl and home to nearly 19 million people. While Laos has technically complied with the principle of prior notification, consultation, and cooperation as described by the 1995 Mekong River Commission (MRC) Treaty, it has used misleading information to advance its hydro projects.

In 2012, for example, Vientiane claimed that engineers involved in Laos' dam-building would design fish passages that would allow fish to travel freely across the Mekong River branches in Laos. However, the MRC has not had the opportunity to review and test Laos' fish passage design. Scientists contend that this design is inadequate because of its one-size-fits-all approach to diverse fish species and its focus on upstream rather than downstream fish migration. And the MRC has no legal authority to prevent violations of the Mekong Treaty.

But what is more concerning is the shifting geo-strategic landscape surrounding the dam conflict. China's increasingly dominant role in controlling upper Mekong waters has worsened relationships with its neighbours. Vientiane and Phnom Penh are building dams based on the assumption that China will allow more water to flow during the dry season. But China can theoretically release or stop releasing water if and when it pleases. A lack of transparency about water managementhas led China's neighbours in Southeast Asia to believe that water control may not only serve China's water needs but also be utilised as a form of coercion over them.

China and the lower Mekong countries tend to make policy based on an outdated interpretation of international water law that emphasises a 'first come, first served' approach, rather than cooperation among all countries along the river. Without a comprehensive cooperative framework to manage water disputes, these disputes could spill over into diplomatic and political arenas.

There is no clear evidence that Beijing has been dictating to Vientiane on decisions over the recent Xayaburi and Don Sahong dam projects. Indeed, the problem lies with Laos itself. It has undermined the cooperative framework of the MRC, while downstream governments have largely failed to stand up to it. There is not a strong history among the Mekong countries of using formal mechanisms, including international law, to resolve problems that transcend national boundaries.

And Vietnam is itself divided. While some in the Vietnamese government are vocally opposing dam-building on the Mekong, other Vietnamese who have close economic and political ties with Laos' leaders are not. Vientiane has taken advantage of this lack of consensus in Vietnam to advance its interests at the expense of its neighbours.

Downstream in Vietnam, there is also concern about the broader strategic uncertainties linked to the race to the bottom among the Mekong countries. China's influence expands from the north on Vietnam's Mekong Delta to the South China Sea. Vietnam believes these waters to be its exclusive economic zone and in the past there has been escalation of conflict between Vietnam and China. The two nations are stuck in a vicious cycle of historic, deep-seated distrust. Beijing is attempting to make Cambodia and Laos buffer states between China and Vietnam. If it does so successfully, China will become the paramount regional hegemon that can change the rules of engagement and 'discipline' Vietnam and other Southeast Asian states.

It is unclear how Beijing's aggressive rise in South China Sea may spill over to water politics in the Mekong and vice versa. In Vietnam, there is popular resistance to Chinese interference in domestic politics: Vietnamese nationalists attack attempts to 'sell' the country to foreign forces. But organised opposition to China does not obviously exist in Laos or Cambodia, leaving Beijing free to try to influence policymaking in these countries.

Relations are deteriorating among the lower Mekong countries and within Asean over the dam conflict, while Beijing continues to exploit this division for its own geopolitical interests. Ultimately, to ameliorate the race to the bottom among the Mekong countries, technical solutions must be connected to efforts to improve the broader strategic landscape, the MRC procedures, and stakeholders' attitudes and behaviours toward regional cooperation.

"The Current Of Discord On The Mekong", 13/03/2015, online at: http://www.establishmentpost.com/current-discord-mekong/

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❖ Bureaucratic infighting hampers action on droughts

ROME, March 10 (Thomson Reuters Foundation) - Infighting between competing government departments has weakened the world's ability to tackle droughts, a U.N. official said as scientists meet at an international conference in Mexico this week to discuss desertification.

Most governments do not have a separate ministry to handle issues related to water, droughts or land management, said Mohamed Bazza, a senior water resource officer for the U.N. Food and Agriculture Organization (FAO).

Responses to expanding deserts and lack of rainfall usually need to be coordinated by several ministries that often compete for funding, power and influence at the expense of preserving the land and effectively addressing the problem, he said.

"Getting prepared for a drought requires integration (between various government agencies)," Bazza told the Thomson Reuters Foundation. "This collaboration has usually been lacking."

Australia and a few U.S. states have good plans to deal with expanding deserts and droughts, he said, while other countries including Mexico, Brazil, Turkey and Morocco are starting to improve their responses.

Globally, desertification affects 250 million people and a third of the earth's land surface - more than 4 billion hectares, said a statement released ahead of a four-day meeting of scientists discussing the U.N. Convention to Combat Desertification (UNCCD) in Cancun,Mexico.

Africa is most impacted by desertification, the U.N. says, with two-thirds of the continent's territory classified as desert or drylands.

As climate change pushes deserts to expand in Africa, an estimated 60 million people are expected to migrate from parched lands in sub-Saharan Africa to north Africa and Europe in the next 20 years, it said.

About half of the world's recent armed conflicts were at least partially caused by environmental factors, the UNCCD reported. Many analysts believe global warming will intensify violent strife.

"The situation is expected to get worse by all (climate change) models," Bazza said. "The desert is extending□ very few countries have the right integrated policies to prepare for drought or to manage it after it occurs."

"Bureaucratic infighting hampers action on droughts - U.N. official – TRFN", 10/03/2015, online at: http://www.reuters.com/article/2015/03/10/food-climatechange-disaster-idUSL5N0WB32520150310?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=a37ba4f9c9-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-a37ba4f9c9-250657169

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