



ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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



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03-09 January 2017

Israel demolishes water wells near Bethlehem

Israeli forces on Wednesday demolished wells built to collect rain water in the village of Taqou, east of Bethlehem, according to Tayseer Abu Mefarreh, director of Taqou village council.

He told Wafa that an Israeli military force accompanied by bulldozers raided an area east of the village and proceeded to demolish a number of water wells under the pretext of construction without permission.

He said the Israeli authorities had recently notified residents that it will demolish 15 of these wells the villagers had dug to collect rain water they use to irrigate their farm land and livestock.

04/01/2017 online at: <http://english.wafa.ps/page.aspx?id=qR2hMTa52001880414aqR2hMT>

Iranian MP warns about Baghdad dam construction plan

An Iranian parliamentarian on Wednesday made warnings about Iraq's decision to build a dam across Arvand Rud, saying this will turn Abadan, southwest of Iran, into a salt marsh.

"Iraq plans to trap water of the Tigris and Euphrates rivers in Um al-Rasas by constructing a dam," said Gholamreza Sharafi, representative of Abadan.

"If the plan is implemented, what remains of palm groves in the vicinity of Arvand Rud will disappear."

This will happen as dam construction in the region will further salinate Arvand Rud, already saline by more than 21 billion cubic meters of high-mineral flows from Karun, the largest river of Iran, the lawmaker added.

Um al-Rasas Island is located in Arvand Rud, a border river called Shatt al-Arab by Iraqis, near the southern city of Basra, about 341 miles south of Baghdad.

Consultation has already begun, Sharafi underscored, saying, "We have asked Iraq and the project's consultant to construct the dam 15 kilometers away from Arvand Rud's mouth."

He offered no more details.

The new location will contribute to the agriculture sector of the region and prevent damage to underground water resources, he explained.

The last time Iran and Iraq agreed on the division of their waterways was in 1975 under the 1975 Algiers Agreement, when the Shatt al-Arab river and its mouth into the Persian Gulf were split along their deepest channel.

The dispute over the border river was a main cause of the 1980-1988 Iran-Iraq war after Iraqi dictator Saddam Hussein abolished the agreement in September 1980.

In addition to water disputes with Iraq, Iran faces similar challenges with Afghanistan across its eastern borders over the Helmand River.

Over the past two decades, Iran has been increasingly feeling the pain of low precipitation and periods of drought, suffering prolonged shortages in its water supply.

According to Isa Kalantari, Iran's former agriculture minister under the Rafsanjani administration, in less than two decades parts of Iran become uninhabitable due to the droughts.

In November 2016, Iran's Deputy Foreign Minister Abbas Araqchi, unnerved by the perspective, called for a more active and creative hydro-politics, underscoring that climate change and global warming have caused surface and underground water supplies to shrink, resulting in internal and external conflicts.

06/01/2017 online at: <http://www.tehrantimes.com/news/409835/Iranian-MP-warns-about-Baghdad-dam-construction-plan>

Iraq: Preparing families for potential collapse of the Mosul Dam

No matter how a flood starts, its consequences are equally dangerous to the people in its path. Most floods are caused by heavy rainfall, storm surges, or insufficient drainage. In Iraq, the global Red Cross Red Crescent network is preparing residents for another type of flood: one resulting from possible collapse of the Mosul dam.

The US Army Corps of Engineers assessed the Mosul dam as the “world’s most dangerous.” It sits on a foundation of soluble rock that continues to erode, making it highly unstable. Critical maintenance to the dam has been disrupted by conflict in the region, so experts are warning about an imminent dam failure – which would put an estimated 10 million people living in the Tigris Valley at risk of heavy flooding and significant loss of life.

If the dam collapses, estimates indicate that 45 feet of water would flood Mosul within 1-4 hours, Tikrit and Samarra would flood within 1-2 days, and 33 feet of water would flood Baghdad within 3-4 days—causing displacement, destruction of core infrastructure, loss of business assets, and increased health hazards.

In order to prepare people for the possible disaster, the global Red Cross Red Crescent network joined forces with the United Nations Development Fund (UNDP) and USAID to alert Iraq's residents about the potential risk of the Mosul dam collapse and recommend key actions to take before, during and after flash floods/dam collapse.

Iraqi Red Crescent volunteers went door-to-door to provide awareness information and encourage people to download Red Cross Red Crescent mobile apps, which contain key information that can keep families safe in the event the Mosul dam fails. The Multi-Hazard App and First Aid App provide critical early warning alerts and basic first aid instructions that can help save lives. The apps include tools such as warning capabilities, up-to-date information on emergencies, and step-by-step instructions—including videos and

illustrations—on how to respond to critical injuries. In addition to the mobile apps, the public awareness campaign is spreading these same disaster preparedness messages via traditional media, community gatherings in high-risk flood areas, and digital media.

Mobile apps are quickly becoming a valuable tool for disaster preparedness around the world—and Iraq is no exception. Mobile phone use has grown rapidly in the Middle Eastern country in recent years, with 92.2% of the population covered. Mobile phone use has been rising steadily since 2003, when services were first introduced in the country.

Flood preparedness is just one aspect of the comprehensive disaster-related work the Iraqi Red Crescent has carried out over the past decade. Volunteers from the Red Crescent have been delivering critical aid in the midst of ongoing conflict in the country and are also equipped to deal with a variety of natural disasters. Most recently, 2,500+ Iraqi Red Crescent volunteers have been providing healthcare, water, food, and sanitation to families fleeing Mosul.

06/01/2017 online at: <http://reliefweb.int/report/iraq/iraq-preparing-families-potential-collapse-mosul-dam>

Mosul Dam collapse 'will be worse than a nuclear bomb'

Engineers and other experts have warned that the collapse of a 13 kilometer long dam on the Tigris River in northern Iraq is just a “matter of time”, triggering an environmental disaster which could leave 1.5 million people dead and millions more as far away as Baghdad without food or electricity.

The Mosul Dam, 60 kilometers away from almost liberated city of the same name, holds 11.1 billion cubic meters of water, and has been plagued by problems since its construction in the 1980s thanks to the fact it was built on soluble ground.

It has required constant maintenance to fill the cavities that form underneath the concrete to stop it collapsing ever since.

A 2006 US Army Corps engineering report found the “Mosul Dam is the most dangerous dam in the world” - but the situation has become more precarious since ISIS took control of the area in 2014, including, briefly, the dam itself. Many of the 1,500 workers stationed there fled, and the extremists damaged much of their equipment.

After six months of frantic security and logistical preparations, an Italian company has kicked off the repair works to beef up the dam, under the protection of five hundred Italian soldiers and Kurdish Peshmerga forces.

The Italian company, TREVI, will have about 18 months to prevent the foundations of the dam from plunging deeper underground, averting an impending catastrophe. Experts warn that if the dam collapses, up to 11.11 billion cubic-meters of water known as Lake Dahuk, will submerge Mosul and create an inundation that will affect the lives of millions of people living along the banks of the Tigris river.

"I don't know if it's a race against time, but we have the know-how and the technology to make the dam safe for the time-being," said a source. "It is just a matter of time. It will be worse than throwing a nuclear bomb on Iraq," said Professor Nadhir al-Ansari of the Environmental Engineering Department at Lulea University in Sweden, who inspected the initial construction.

08/01/2017 online at: http://www.pukmedia.com/EN/EN_Direje.aspx?Jimare=39413

Syrian army, allies press assault to secure capital's water supply

The Syrian army and its allies pressed ahead on Friday with a two-week-long offensive to seize a strategic valley where a key spring provides supplies to four million people in the capital, Damascus, residents and rebels said.

Aerial bombing and shelling from the army as well as Hezbollah fighters stationed in the mountains that overlook the valley on the northwestern edge of the capital had intensified in the last forty-eight hours, they said.

Scores of jets pounded the area around the Ain al-Fija springs and the villages of Baseimah, Kafr Zayt and al Husseineh, which form part of a cluster of ten villages controlled by rebels in the valley that lies at the northwestern edge of the capital.

The Syrian army, aided by Hezbollah, the Iranian-backed Lebanese Shi'ite group, has so far been unsuccessful in making any significant advance in the valley since they launched the drive to capture the strategic area and accused rebels of polluting the springs with diesel.

The rebel fighters there rejected a government offer to leave the area for the rebel-held province of Idlib in northern Syria. Similar deals have led rebels to yield swathes of territory, including Aleppo.

Area residents say the rugged nature of the terrain gives the rebels, drawn from both moderate and Islamist factions, a natural advantage to pin down any advancing troops.

"They cannot advance easily; even if the rebels are outnumbered they can easily strike any advancing troops from the three main entrances into the encircled valley," said Abu Mohammad al Qalamoni, a rebel fighter in contact with comrades inside the valley.

CEASEFIRE STRESSED

The military offensive has strained a ceasefire agreement brokered by Russia and Turkey aimed at bringing about Syrian peace talks in Kazakhstan.

The opposition has warned that unless the Syrian army halts its attacks it would consider any truce "null and void". They have also suspended any discussion on participating in the forthcoming peace talks unless Russia puts pressure on the government and its Tehran-backed allies to abort the offensive.

Wadi Barada lies on a road from Damascus to the Lebanese border that is a key supply line for Hezbollah, which is heavily involved in fighting alongside the Syrian army.

The rupture of water supplies from the springs has caused severe shortages after the pumping station of Ain al Fija that supplied around 70 percent of the capital's water needs was damaged.

Prices of bottled water and trucked water supplied by private traders to residential homes has tripled, residents of the sprawling capital say, with a black market now thriving.

The government of Syrian President Bashar al Assad has also brought in supplies from other provinces by tanker to cover some of the shortfall in the capital and pumped extra water from underground wells.

The army says it is fighting radical Islamists in the area, a claim denied by local fighters. A military media unit run by Hezbollah said on Thursday at least 11 al Qaeda-linked fighters were either killed or wounded when they were targeted by rockets, but those figures could not be independently confirmed.

The civilian population in the valley is estimated by the United Nations to number around 45,000, but civic groups say the total is double that with their plight worsening daily under heavy shelling and shortages of food and medicine.

Dozens of homes have been hit by the bombing campaign.

Only 1,200 families have so far left to a government-run shelter in the nearby town of Rawda, the U.N. said.

“We hope in a few days water will return back to the capital after the army takes back Ain al Fija. The army is advancing and ... we expect good news,” Alaa Munir Ibrahim, a governor in the Damascus suburbs, told state media.

06/01/2017 online at: <http://www.iraqinews.com/arab-world-news/syrian-army-allies-press-assault-secure-capitals-water-supply/>

Syria conflict: The biblical river at the heart of a water war

The flashpoint for Syria's war, six years old this March, has in recent days taken the form of an elemental struggle over water.

The drinking water supply to some 5 million residents in the Syrian capital, Damascus, was cut on 23 December by the Damascus Water Authority, who say rebels have contaminated it with diesel. Rebels deny this, saying bombing by the government has damaged the infrastructure.

The historic water source of Ain al-Fijeh lies in the valley of Wadi Barada, 18km (11 miles) north-west of the capital, where a cluster of 10 villages has been under rebel control since 2012.

Local people joined the revolution early on in protest against government neglect, corruption and land grabs made legal under new state land measures, where whole hillsides were requisitioned for sports clubs and luxury hotels.

On 22 December the Assad government, using barrel bombs dropped from helicopters and supported on the ground by Lebanese Shia militia fighters of Hezbollah, began a campaign to take control of the strategic valley and springs.

The timing was significant, just days before the announcement of the countrywide ceasefire brokered by Russia and Turkey on 29 December.

Network of waterways

The Barada Gorge was cut through the Anti-Lebanon Mountains eons ago by the Barada River, which still runs through the centre of Damascus.

Today the river is just a shadow of its former self, diminished for most of the year by drought and pollution to a dirty trickle by the time it reaches the city centre.

But in earlier times it was the source of the city's legendary fertility, and the reason for its location in an oasis of gardens and orchards known as the Ghouta.

The river was and still is fed by the melt waters of Mount Hermon, Syria's highest peak. Mentioned no less than 15 times in the Bible, it retains its snow-capped summit till early June.

The amount of snowfall in winter is a direct indication of how much water Damascus will have throughout the year.

The Barada River, known in ancient times as Abana, was supplemented through seven further rivers whose course was diverted by means of elaborate channels constructed as far back as the Roman era.

Guided by aqueducts into the centre of Damascus, the city was fed by a complex network of waterways and channels that allowed water to flow in and out of every house.

Sophisticated Ottoman water distribution points throughout the city also allocated water in agreed quantities to the public bathhouses, mosque ablution areas and public drinking fountains.

Even today most houses have a special drinking tap in their kitchen directly connected to the spring.

Coffee houses

In high summer families would come to Wadi Barada on Fridays and holidays, often renting a riverside platform for the day.

Rigged up as tent awnings open only onto the river side, they formed an idyllic private arbour where families could relax, enjoying the coolness of the fast-flowing river.

Little iron ladders were fixed onto the platforms, so that children could climb down and swim.

In the 16th Century it was along the banks of the Barada river on the outskirts of Damascus that the first coffee houses grew up.

Pilgrims would assemble, waiting for the annual Hajj or pilgrimage to Mecca to set off in one huge joint caravan, protected in numbers from raiding desert tribesmen.

Many engravings from the 19th Century show scenes of coffee houses on the banks of the brimming Barada.

Latin inscriptions

Near the village of Souq Wadi Barada, huge gaping holes in the cliff above can be still be accessed.

They are part of the original Roman water system: elaborate tunnels cut into the rock, conducting the meltwaters into the aqueducts of Damascus.

On sections of the old Roman road between Baalbek and Damascus, inscriptions in Greek, the official language, and in Latin, the language of the soldiers, can still be seen, describing how the road was rebuilt higher up to avoid destruction by flooding.

For Hezbollah too the battle is a geographical one. They regard this area as their backyard, connected to their Baalbek stronghold in Lebanon.

The Syrian government claims there are fighters from the al-Qaeda-linked Jabhat Fateh al-Sham (formerly Jabhat al-Nusra) present in Wadi Barada, to justify its ongoing campaign. Local residents insist there are only Free Syrian Army moderates.

Since both UN monitors and Russian officials have been denied access to the area by Hezbollah checkpoints, the truth remains hidden - as so often in Syria - behind the fog of war, or in this case, beneath the waters of the Barada.

08/01/2017 online at: <http://www.bbc.com/news/world-middle-east-38532338>

UN: Interruption of water supply in Syria a war crime

Secretary General of the Norwegian Refugee Council Jan Egeland [official website] on Thursday stated [transcript] that the interruption of water that has left millions of Syrians without clean access to water constitutes a war crime. The secretary, who acts as chair for the UN/ISSG Task Force on Humanitarian Access in Syria, made the statement during a press conference where the adviser said that more than 5.5 million people are experiencing water shortages where around 30 percent of water functions have been restored. The adviser stated that Syria is still very much a battleground, and the UN is trying to do investigate the situation more.

To sabotage and deny water is of course a war crime because it is civilians who drink it, and civilians who will be affected by waterborne and other diseases, if it is not restored. I am disappointed that so far the cessation of hostilities that is holding in so many places is not increasing our access. Why isn't there access? Well, there is a whole web of obstacles really; not only do we need approval from the Ministry of Foreign Affairs in Damascus, we need it from the Governor's office, from the Security Committee of the region, from the security

forces involved, and from the armed groups inside. All of them have to allow us access, and it only takes one of them to deny us access. We are routinely still denied access, and we hope that the cessation of hostilities and the guarantors can change that. It has not so far.

08/01/2017 online at: <http://www.jurist.org/paperchase/2017/01/un-interruption-of-water-supply-in-syria-a-war-crime.php>

UN raises concern about alarming water situation in Syria

The United Nations Children's Fund has raised alarm over a potential increase in diarrheal diseases among people, especially children, in the areas around Damascus due to a lack of clean water.

A UNICEF spokesperson Christophe Boulierac informed media at a press briefing in Geneva that private distributors were providing water in and around Damascus but he was worried about the quality and price of those supplies.

Boulierac further said that residents did not have access to water for up to two hours every three or four days. Therefore, he said, residents had resorted to getting water from private distributors, whose supplies were not regulated with regards to price or quality. Currently, families are reportedly paying \$12 for 1,000 litres of water. The spokesperson further said that a lack of regulation of the quality of water had prompted concerns about the risk of water-borne diseases among children.

The UNICEF also reported that children were taking the burden of collecting water for their families and most children had to walk at least half an hour to collect water from the nearest water supply, which was usually a mosque.

So far UNICEF and its partners have rehabilitated and equipped 120 wells in and around Damascus in order to provide water to a third of its residents. As of December 22, these wells have been the only source of water for the entire city.

UNICEF has also provided generators and fuel in order to increase water production for 3.5 million people. This past week, UNICEF was providing water to 50 schools with 30,000 children through water trucks.

Boulierac informed that these solutions were temporary and UNICEF and its partners were ready to initiate repair of damaged water networks as soon as access was granted. He emphasised that all parties in the conflict must meet their obligations under international humanitarian law and should protect the civilian infrastructure, including water facilities.

Boulierac reported that the area's two primary water sources in Wadi Barada were natural springs which had been affected by fighting. He was unable to provide details on the current situation in Wadi Barada due to a lack of access to the area.

A World Health Organisation (WHO) spokesperson Tarik Jasarevic said that once teams have access to public water facilities, it would take a minimum of four days to complete repairs, possibly longer depending on the nature of the damage. He also noted that some people were

using water sources near the river within Damascus, but the water had yet to be tested for bacterial safety.

09/01/2017 online at: <http://dailytimes.com.pk/world/09-Jan-17/un-raises-concern-about-alarming-water-situation-in-syria>

Mass of farm water to be dedicated to Lake Urmia restoration

Deputy energy minister said approximately 1.2 billion cubic meters of water per year will be led to Lake Urmia following a 40% reduction in agricultural water use in the lake's catchment area.

Iran's Deputy Energy Minister Rahim Meidani expounded on the role of Kordestan province in restoration of Lake Urmia saying "the government is pursuing the issue of saving Lake Urmia while implementation of developmental projects in the agricultural sector and excessive water consumption could interfere with the restoration scheme."

He asserted that Ministry of Energy had defined various strategies through which provinces could simultaneously help save the northwestern lake as well as follow up their developmental plans.

The official, while noting that alternative procedures will be completed early in the next Iranian calendar year (to begin March 21), said "the most significant measure on the agenda of Lake Urmia Restoration Commission (LURC) is to lower farm water use by 40 per cent which paves the path for about 1.2 billion cubic meters of gas to enter the endangered lake on an annual basis."

"Yet one more plan by LURC pertains to prevention of illegal recovery from the catchment area of Lake Urmia," maintained Meidani who later commented that the measure required cultural and social activities, improvement of irrigation methods not to mention water and soil management in farm and orchards.

Deputy Iranian energy minister called for allocation of a fair share of water resources to restoration of Lake Urmia concluding that all involved parties had to pull their weights.

In the late 1990s, Lake Urmia, in north-western Iran, was twice as large as Luxembourg and the largest salt-water lake in the Middle East. Since then it has shrunk substantially, and was sliced in half in 2008.

So far, several domestic and foreign institutions have voiced readiness to join hands in restoration of the Iranian landmark which is an endorheic salt lake in Iranian Azerbaijan, Iran and near Iran's border with Turkey.

09/01/2017 online at: <http://en.mehrnews.com/news/122555/Mass-of-farm-water-to-be-dedicated-to-Lake-Urmia-restoration>

Muscat Water completes desalination plant in Qurayat

Muscat Water, a joint venture between Al Sulaimi Group Holding and AquaSwiss AG, has completed the construction of its water desalination plant in Qurayat.

The plant will produce 8,000 cubic metres of desalinated water per day for supplying potable water to Qurayat and nearby villages, according to a company release.

Muscat Water had won the contract to build, own and operate a temporary desalination plant in Qurayat and Asselah through Oman Power and Water Procurement Company, a member of Nama Group, the sole procurer of all new power generation and water desalination capacity in the Sultanate, through a tendering process. A signing ceremony took place in March, 2016. The project is structured as an independent water project (IWP) with OPWP purchasing the potable water produced by the project under a water purchase agreement.

The completion represents a significant milestone in the development of Muscat Water's water treatment business, one of its key target markets. This project also strengthens Muscat Water's standing as an Omani company which has established itself as a successful owner and operator of water treatment facilities.

Muscat Water aims to produce potable water at very competitive prices through unique differentiating technologies, to assure a high local Omani content, and to develop significant in-country-value through the deployment of Omani manpower and local manufacturing capabilities in its projects.

Thus, OPWP and Muscat Water share the same motive to meet the growing needs for water while creating more employment opportunities within the country through the project. Muscat Water is involved in several projects in water treatment and desalination in the Sultanate, and their next project will be the completion of the desalination plant in Asselah.

07/01/2017 online at: <http://timesofoman.com/article/100001/Business/Muscat-Water-completes-desalination-plant-in-Qurayat>

What happens if taps run dry?

In the developed world, expectation is nothing less than a right. We turn on the tap, and we expect clean drinking water to flow; we switch on the lights, and bulbs must illuminate; we swim in waterways that must be safe and free from bacteria.

Many resources that are critical for life are taken for granted with little regard as to how the water came to be in the tap or how the power got to the bulb. They are regarded as an entitlement.

But beneath the surface, hidden and unseen, lies literally a labyrinth of aquifers and hundreds of thousands of kilometers of pipes and wires, connected by a myriad of pumps and valves all pulsing away in real time in the most intricate interconnected web that make our cities habitable. Decades of planning, engineering, sweat and hard labor have been invested to provide these precious commodities – and the tide of demand is rising ever higher.

It's often said that we don't realize what we have until it's gone.

This is perhaps how some of the 1.7 million residents of South Australia felt on the evening of 29 September 2016, when severe storms toppled power transmission towers and left their state in darkness. The infrastructure that ensured the steady provision and flow of electricity went largely unnoticed and unappreciated, until it was no longer doing its job.

Similarly, the resource supply systems undergirding cities in the Middle East's Gulf Cooperation Council (GCC) countries, and Qatar in particular, are currently under severe strain. For agriculture alone in 2013, Qatar drew some 230 million cubic metres of water (enough for 92,000 Olympic-sized swimming pools), according to the 'Water Statistics in the Qatar state 2013' report published by its Ministry of Development Planning and Statistics (MDPS).

That is about five times as much water as is entering Qatar's aquifers each year, leading to increased salinity and making it difficult to use the groundwater for irrigation and for drinking water supply in the future. Furthermore, in 2012, Qatar's total water production was supplied by desalinated sea water (57%), abstractions from groundwater (33%) and the remainder from treated sewage effluent. Desalination is a high user of energy, making it an expensive source of water. How sustainable is this option in the long-term?

Like many countries, Qatar faces the real possibility of a perfect storm that will push the infrastructure close to breaking point.

The confluence of our insatiable appetite for urbanization coupled with an unpredictable climate, all superimposed on infrastructure that is aging, requires a new paradigm. Ongoing demands for upkeep and expansion have an eye-watering price tag. Water infrastructure is a multibillion-dollar asset that, if we were to overhaul and redo, would burden a country's budget. As an illustration, Qatar had allocated \$3 billion for water projects from 2009 to 2012. With demand expected to increase from 535 million cubic meters in 2015 to about 900 million cubic meters by 2025, according to Qatar General Electricity & Water Corporation's (Kahramaa) estimates, how can stakeholders manage the compounding pressures on limited resources, coupled with the adverse effects of climate change? The public purse and taxpayer pool will have to somehow satisfy the living standards and expectations to which communities have become accustomed.

Water cannot be seen as an isolated utility, but an integrated variable in the quest to solve societies' major problems. Water authorities like Kahramaa have done an excellent job, quenching our thirst for water over the years. But the challenges are not for them to tackle alone. The world of water in a decade's time will see people expect exactly the same level of service (if not better), yet the problem will have grown in complexity. More pipelines are only a palliative solution. It's a mindset shift that's called for: the utility authorities will need to change people's behavior through better digital interaction with water – something which Kahramaa has started doing with the recent launch of its app.

03/01/2017 online at: <http://www.constructionweekonline.com/article-42428-what-happens-if-taps-run-dry/>

Misr Concrete executes 500M pounds-water network in New Heliopolis

Misr Concrete Development Company is implementing a water network in New Heliopolis city with cost worth 500 million Egyptian pounds (US\$27.6 million) as a part of its scheme for developing infrastructure.

Misr Concrete targets developing the city within the next years in cooperation with Egypt's Heliopolis Company for Housing and Development (HELI), Khaled El Marasy, HELI vice-chairman, told Amwal Al Ghad Sunday.

This network aims to convert the main water lines from the north of Heliopolis city to the south as well as carrying out city's infrastructure in order to execute the construction works, El Marasy stated.

El Marasy noted that it is scheduled to conclude the 655 feddans-project at the end of 2017.

The Egyptian official further added that there are three types of current utilisation works in New Heliopolis including drinking water lines, sewage treatment stations, and two electricity plants.

El Marasy clarified that New Heliopolis City project will be developed in partnership with Egypt's property developer SODIC with return on investment estimated at 10 billion Egyptian pounds.

SODIC plans to launch its plan and mandate housing works within the next months, the official concluded.

03/01/2017 online at:

https://www.zawya.com/mena/en/story/Egypt_Misr_Concrete_to_complete_276m_water_network_project_by_end2017-ZAWYA20170103053738/

OriginClear Responds to New Water Mandates in North Africa with Strategic Regional Alliance

OriginClear Inc. (OTC/QB: OCLN), a leading provider of water treatment solutions, today announced that it has responded to EU-level water infrastructure mandates by African governments by working with French engineering company UltraEpur.

"UltraEpur contacted us to help rapidly clear up contaminated industrial water, beginning in Algeria, where the government intends to upgrade to developed-world water standards rapidly," said "JL" Kindler, President of OriginClear Technologies. "We have since entered a technology license agreement, and UltraEpur purchased a laboratory demonstration unit, which it plans to exhibit at the SIEE Pollutec trade show in Algiers in February."

"We identified OriginClear's EWS:AOx™ as a perfectly complementary upstream treatment solution for our filtration systems," said Thierry Vignal, founder and principal of UltraEpur. "We have already integrated OriginClear into our planned pilot system for an Algerian

industrial site that must meet stringent new water regulations effluents that exceed 4000 m³ per day (or more than one million gallons daily)."

"In a conservative water industry, we look for fast-adopters that intend to respond to intense demand in their regions," added Kindler "We're delighted to add UltraEpur to the ranks of these visionaries."

According to founder Vignal, UltraEpur is active in France, where it is headquartered, but also in North Africa and French-speaking Western African countries such as Ivory Coast.

While UltraEpur is not relying on government funding for its commercial activities, development of the country's water supply system is a high priority for the Algerian government in its new five-year plan.

05/01/2017 online at: <http://www.prnewswire.com/news-releases/originclear-responds-to-new-water-mandates-in-north-africa-with-strategic-regional-alliance-300386160.html>

Indus water dispute: Pakistan asks World Bank to resume arbitration process

Pakistan has urged the World Bank to resume the process of arbitration in its Indus water dispute with India despite the latter's objection. Pakistan in its communications with the bank argued that the Indus Waters Treaty (IWT) can only be saved by arbitration, reports the Dawn.

Islamabad said that it wants the bank to restart the arbitration process as much of the precious time has already been lost even if India disagrees with the suggestion. India had informed World Bank representative, Ian H. Solomon that Pakistan's request for setting up a court of arbitration was not acceptable to New Delhi. Solomon was in India to hold the discussion on the water dispute. However, India asked the bank to appoint a neutral expert.

Pakistan is raising its objection to building of the Kishanganga (330 megawatts) and Ratle (850 megawatts) hydroelectric plants by India saying that it violates the provisions of the treaty. Tensions increased over the water dispute when Indian Prime Minister Narendra Modi last month threatened to block the flow of water into Pakistan.

World Bank had earlier asked both the countries to consider alternative ways to resolve their disagreements over the Indus Water Treaty Dispute 1960. The World Bank had said that it was temporarily halting the appointment of a neutral expert as requested by India, and the Chairman of the Court of Arbitration, as requested by Pakistan, to resolve issues regarding two hydroelectric power plants under construction by India along the Indus Rivers system.

The treaty which was signed in 1960 by then Indian Prime Minister Jawaharlal Nehru and Pakistan President Ayub Khan gives India control over the three eastern rivers of the Indus basin-Beas, Ravi and Sutlej, while Pakistan has the three western rivers- Indus, Chenab and Jhelum. As per the provisions in the treaty, India can use only 20 percent of the total water carried by the Indus River.

The Indus Waters Treaty 1960 is seen as one of the most successful international treaties and has withstood frequent tensions between India and Pakistan, including conflict. The treaty sets out a mechanism for cooperation and information exchange between the two countries regarding their use of the rivers, known as the Permanent Indus Commission which includes a commissioner from each of the two countries.

09/01/2017 online at: <http://indianexpress.com/article/world/indus-water-dispute-pakistan-asks-world-bank-to-resume-arbitration-process-4465943/>