



# ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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



## **ORSAM WATER BULLETIN**

*11 July 2017 - 17 July 2017*

### **Qaladze officials report complete stop of river into their town by Iran**

A government official in the Kurdish border town of Qaladze announced on Wednesday that Iran has completely stopped the small amount of water flow it had released into the Kurdistan Region earlier this month.

Bakir Baiz, Qaladze mayor told Rudaw that the small amount of water flow coming from the Little Zab River or Zei Bchuk into the town of Qaladze has been largely reduced and "the situation has now gone back to how it was before. It is as if they have completely blocked the water."

He explained they had called the mayor of Sardasht city on the Iranian side to inform them of the reduction of water flow again. He added that they had not received an answer from them yet.

Iran recently constructed a dam on Zei Bchuk in the Kurdish city of Sardasht to produce hydroelectric power. In late June, Tehran initially stopped the water flow across the border into neighboring Kurdistan Region resulting in an 80-percent reduction of water flow across the border into the Khas water project in Qaladze. The river also feeds Dukan Lake.

Following repeated calls by Erbil, Iranian authorities restored a small portion of water amounting to just seven percent of the river

The Kurdistan Regional Government (KRG) has threatened in the past to cut off water to central and southern Iraqi provinces if Iran continued to stem the flow of water into the Region.

And today a high-level Iraqi government delegation of oil, education, health and agriculture officials arrived in Erbil, reportedly to discuss a range of issues among them energy and water resources.

Local authorities in Qaladze have repeatedly said that reduction of water flow into Qaladze town damages more than 80,000 people of Qaladze town.

It has also materially been detrimental to many projects including fish-raising projects, livestock, tourism, and many other projects. It also affects Sulaimani city, Kurdistan's second biggest city, as it relies on the Dukan Lake for drinking water.

The river also feeds Dukan Lake. Compared to last year, Dukan Lake's water level has dropped by some 18 percent, partly due to the impact of the stemming of water flow from Zei Bchuk into the lake, according to figures from Hama Tahir Jalal, manager of Dukan Dam.

The Kurdistan Region has several small rivers and the two major lakes of Dukan and Darbandikhan that contributes to the country's electricity.

12/07/2017 online at: <http://www.rudaw.net/english/kurdistan/120720172>

## **Restoration of Aleppo's key water pumping station gets underway**

Footage released on Friday captured the progress of the restoration to Aleppo's key water pumping facility at al-Khafsa near the Euphrates.

Director of the water distribution station in Aleppo Province, Abdul Wahab Habha, noted that the station was "a huge facility that provided water throughout the northern part of Syria and even some southern provinces" and that "water from here went on to irrigate the land over an area of 50,000 square hectares."

According to the workers of the station, when the site was captured by militants, the station's personnel refused to evacuate it. Water tower engineer, Ahmad Bahridiyab, recounted that when the station was under the militants' control, the personnel "continued with our work. Every day we came here and made sure that everything was in order."

The station, which was a joint Syria-USSR project, was reportedly commissioned in 1989 and constructed by Soviet specialists.

Earlier this year, Aleppo residents reportedly went without drinkable water for almost two months following the self-proclaimed Islamic State (IS; formerly ISIS/ISIL) who were then in charge of the facility, decided to cut supply.

In March, the Syrian Arab Army recaptured the station from IS. The site was first captured by forces in opposition to the government in February 2013 before being captured by IS in January 2014.

15/07/2017 online at: <https://www.almasdarnews.com/article/restoration-aleppos-key-water-pumping-station-gets-underway-video/>

## **300 Iranian cities on verge of water tensions**

Iranian media outlets have revealed an open message sent by the "Water Foundation" to President Hassan Rohani warning of "escalating conflicts in Iranian provinces over water sharing in the near future" as the country is facing an unprecedented water crisis.

"In the near future, competing for limited water resources will expand, and conflicts over shares will spread across the country," the Iranian Water Corporation said in an open statement to Rohani, signed by 110 experts, researchers and scientists in the water field.

The head of the National Security and Foreign Policy Committee of the Iranian parliament, Alaa Elddin Boroujerdi has confirmed that the "water crisis" has turned into a security issue and the parliament established the (Water Security Committee) to track the repercussions of the crisis.

"The water resources in the country are very limited; Iran is one of the driest places in the world and we have a water crisis that has practically become a security issue," Boroujerdi criticized 38 years of neglecting the water crisis in his country, which is the age of the Islamic revolution.

Rahim Maidani, water official at the Iranian Energy Ministry, said that 295 cities, including 6 large cities, are facing drought and water crisis in the country.

Demonstrations have been launched in cities such as Ahwaz, which accuses the government of directing water towards the Persian provinces in the center of Iran, as well as Isfahan, what increases the complains is the of lack of water, where some Iranian officials warned of the emergence of internal conflicts in the near future because of the water crisis in the country.

Two years ago the former agriculture minister Issa Klanter warned of the crisis and said that 50 million Iranians would have to emigrate over the next two decades in order to survive.

“Misusing and wasting water resources are due to mismanagement in the field of water and natural resources,” Toronto-based Iranian environmental expert Sam Khosravifard told Al Arabiya News.

Last year, Iranian President Hassan Rohani instructed the agriculture ministry to boost output in order to achieve self-sufficiency in five staple crops.

Iran’s agricultural sector reducing its water consumption would “hamper the target of self-sufficiency,” Bijan Khajehpour, a consultant at a Tehran-based group wrote.

Crop-growing alone “devours more than 90 percent of the water and the water efficiency is around 30 percent in this sector,” Khosravifard said, adding that a water shortage was inevitable.

“Moreover, the irrigation system hasn't been modernized in many areas and the cultivation pattern is not matched with ecological capabilities. Therefore, the current issue was not unpredictable.”

Highlighting the magnitude of the crisis, a 2013 study by the World Resources Institute ranked Iran as the world’s 24th most water-stressed country.

In the past 50 years, the growing population has used up almost 70 percent of Iran’s groundwater supply, the Washington Post reported, adding that the situation would only worsen because of “unsustainable development.”

In ancient times, to deal with the country’s “arid and semi-arid” environment, “Iranians created the aqueduct in order to overcome the challenges caused by water shortages,” Khosravifard said.

But more recently, even when the Iranian government attempted to tackle the issue by building dams, the water held by the massive structures evaporated, he added.

“Several research and studies carried out by academics have shown the pros and cons of the dam in Iran,” he told Al Arabiya News.

However, the Iranian government did not consider the results of the studies “because the dam construction not only provides lots of benefits for VIPs, but also they are tools to be presented as success and achievement of officials,” he said.

11/07/2017 online at: <http://saudigazette.com.sa/article/512598/World/Mena/water>

## **War of Words Heats up Between Iran and Afghanistan over Water Resources**

A long-running diplomatic squabble between Iran and Afghanistan over shared water resources appears to be intensifying, with the two countries' presidents trading barbs in speeches over the past couple of weeks.

At the heart of the current dispute is the Kamal Khan dam, which Afghanistan is building on the Helmand river – the longest water course in the country, which rises in the Hindu Kush mountains west of Kabul and flows in an arc southwest until it empties out into the Hamun wetlands which straddle the border between the two countries, seeping into the Iranian province of Sistan & Baluchistan and Afghanistan's Nimruz and Farah provinces.

Afghanistan launched a third phase of the dam in April and it should be completed within four years. In theory such projects should be covered by the Helmand River Treaty signed by the two countries in 1973, but the agreement is far from water-tight with both sides accusing the other of failing to meet their obligations.

Speaking at a UN-backed conference on sand and dust storms in Tehran on July 3, Iran's President Hassan Rouhani said his government could not remain silent about the environmental damage being caused by the dams Afghanistan has built on rivers flowing into Iran. Among them, he named the Salma dam on the Hari Rud and the Kajaki and Kamal Khan dams on the Helmand river.

"Building dams without studying environmental aspects is damaging for the region," he said. "If Hamun's water dries up, in addition to Sistan & Baluchistan, Afghanistan itself will be in danger".

The Afghan government has since responded A few days after Rouhani's speech, a Ministry of Water and Energy (MWE) spokesman said building dams on the Helmand river was a top priority for the government. It also accused Iran of building more than 30 dams on rivers which flow into Afghanistan, restricting the flow of water in the other direction.

Afghanistan's President Ashraf Ghani followed up with a speech on July 9 in which he made clear his government was intent on continuing with its plans. "Water is another major resource for Afghanistan," he said. "We are already investing in dams and irrigation infrastructure to raise agricultural productivity, and as technical designs are completed we will be accelerating investment in this sector that is key for both growth and poverty reduction."

In truth neither government can avoid blame for what looks like an increasingly mismanaged resource. As noted in an Atlantic Council paper published in September 2016, both sides have long been guilty of building dams and developing agricultural land without sufficient regard to the environmental impact.

12/07/2017 online at: <https://www.forbes.com/sites/dominicdudley/2017/07/12/iran-afghan-water-dispute/#76538b0f203c>

## **Environmental official warns of water waste in Iran**

A senior Iranian environmental official said that some 27 billion cubic meters of water is squandered away in Iran every year, Financial Tribune daily reported on Thursday.

Masoumeh Ebtekar, Iran's vice president and head of environmental protection organization, said that correcting consumption patterns in agriculture and industries is the only surefire way to reduce water loss.

Meanwhile, up to 170,000 illegal water wells have emerged as a major challenge for the government, which is pushing for rational agricultural practices.

About 92 percent of the country's water resources are reportedly used up by unsustainable and wasteful farming and irrigating practices.

Iran's annual water consumption tops 97 billion cubic meters, while the country only has 88 billion cubic meters of renewable sources, said Isa Kalantari, the former agriculture minister.

Further reports also blamed the water crisis in Iran on excessive damming of rivers, drought and climate change.

Moreover, low water prices encourage wasteful consumption, while some farmers and organizations have been accused of stealing water supplies for their own benefits.

Experts predict that Iran's water scarcity will hit crisis level by 2025, when available renewable water will be less than 1,000 cubic meters per capita, down from 2,000 cubic meters in 1950.

The World Resources Institute ranked Iran as the world's 24th most water-stressed nation, putting it at extremely high risk of future water scarcity.

13/07/2017 online at: [http://news.xinhuanet.com/english/2017-07/13/c\\_136441607.htm](http://news.xinhuanet.com/english/2017-07/13/c_136441607.htm)

## **Iran says high UV radiation quadruples around Urmia Lake**

Ultraviolet (UV) radiation around Urmia Lake in northwest of Iran has quadrupled over the past 10 years, putting life health at risk, Financial Tribune daily reported on Sunday.

The increase in UV radiation, due to the decreasing water level, has a multitude of impacts on health including the result of cataract at its worst, Masoud Tajrishi, head of planning at the Urmia Lake Restoration Program was quoted as saying.

"There is also the risk of skin cancer if you spend too much time around the lake," Tajrishi warned.

The restoration program of the lake has so far focused on curbing the effects of dust and sand storms, he said, adding that "teams will be sent to villages around the lake to screen locals for the effects of UV radiation."

The chronic effects of UV can be serious, including premature aging of the skin, suppression of the immune system, damage to the eyes and skin cancer, and even life threatening.

The UV rays can also damage the eyes as more than 99 percent of radiation is absorbed by the front of the eyes. Corneal damage, cataracts, and macular degeneration are all possible results from UV exposure and could lead to blindness.

The Urmia Lake area has more than tripled since 2013 when it was 700 square kilometers, but that is not enough to curtail the dangerous impact of UV exposure.

Urmia Lake's water level is expected to further drop since the temperature this summer is forecast to be around 1.8 degrees Celsius higher than last year.

Located between the Iranian provinces of East and West Azarbaijan, Urmia Lake has been facing serious drought for years. Its severe water loss is attributed to climate changes, the long dry spell, unrestrained damming and irresponsible water use, especially in the agriculture sector.

16/07/2017 online at: [http://news.xinhuanet.com/english/2017-07/16/c\\_136447894.htm](http://news.xinhuanet.com/english/2017-07/16/c_136447894.htm)

### **Israel, Palestinian Authority reaches water-sharing deal**

Israel and the Palestinian Authority have reached a water-sharing deal to bring relief to parched Palestinian communities, in a breakthrough announced during the latest visit to the region by the US Middle East envoy.

The deal announced by Jason Greenblatt, the US Middle East representative, in Jerusalem on Wednesday would give Palestinian territories about a quarter of its annual water needs at a reduced rate.

Israel's Regional Cooperation Minister Tzachi Hanegbi and Mazin Ghunaim, head of the Palestinian Water Authority, were also present when the deal was announced.

Greenblatt said that with the deal, Israel would provide the West Bank and Gaza Strip with 32 million cubic metres, or 32.9 billion litres, of water annually in the immediate future.

The \$900m pipeline project is expected to be completed in almost five years. It is part of a larger plan, which includes Jordan, to send water through the pipeline from the Red Sea to the Dead Sea.

"Water is an extremely political issue between Israeli and Palestinian officials," Al Jazeera's Harry Fawcett, reporting from West Jerusalem, said.

"The Palestinians made it clear that while they welcome this particular deal, it doesn't affect the status of the negotiations in terms of final settlement between Israel and the Palestinians."

The US, Israeli and Palestinian negotiators hope the deal could also pave the way for a return to negotiations between the two sides, after talks collapsed in 2014.

Palestinians suffer from water shortages and say the unequal distribution of water resources favours Israel.

Ghunaim said 22 million cubic meters would go to the occupied West Bank, while 10 million would go to Gaza.

"This will reduce the suffering of the Palestinian people and the crises that they are living through that have increased this summer," he said.

In 2013, Israel, Jordan and the Palestinians signed a memorandum of understanding on the water project that included plans to build a desalination plant at the Red Sea.

Hanegbi said the wider agreement was the "most ambitious" in the history of the region.

"It will supply [a] significant amount of water to Jordan, Israel and the Palestinians," said Hanegbi.

"All of us in this room proved that water can serve as means for reconciliation, for prosperity, for cooperation, rather than be a cause for tension and dispute."

Since it occupied the West Bank in 1967, Israel has laid hands on Palestinian water resources through water-sharing agreements that prevented Palestinians from maintaining or developing their water infrastructure through its planning and permit regime.

As a result, thousands of Palestinians are unable to access sufficient water supplies and became water-dependent on Israel.

13/07/2017 online at: <http://www.aljazeera.com/news/2017/07/israel-palestinian-authority-reach-water-sharing-deal-170713165223323.html>

### **Water crisis in Samaria**

Residents of the Samaria towns of Kedumim, Shavei Shomron, Yitzhar, and Barkan are currently suffering from an irregular water supply.

According to estimates, the deficit in the main reservoirs is currently between 15,000 and 20,000 cubic meters. This amount must be divided between both the Jewish and Arab residents of the area.

Fifteen containers of water are on their way to the four Jewish towns, but a long-term solution has not yet been found. Last year as well, Jewish residents of the Samaria and Binyamin regions suffered from a water shortage.

Some of the shortages were caused by Arab water theft, which is often used for illegal Arab farmland instead of for the thousands of acres of legal farms for which it was intended.

Last year, Samaria Regional Council Head Yossi Dagan involved National Infrastructure Minister Yuval Steinitz (Likud) and Deputy Defense Minister Rabbi Eli Ben-Dahan (Jewish

Home). The two approved drilling a new well, "Ariel 1," which provides 5,000 cubic meters of water per day.

This significantly improved the situation, but did not completely solve the problem, since the relevant authorities did not quickly advance the creation of better regional infrastructure.

Construction of an additional major water pipeline is due to be completed within the next few weeks, but this will not solve the issue entirely since the pipeline will only be able to provide between 3,500 to 4,000 cubic meters per day.

"We cannot make peace with the fact that hundreds of families again found themselves without water," Dagan said. "These families are forced to drink water from bottles brought up the mountain. It's as if we're in the 40s and 50s.

"The government must do everything in its power to construct water pipelines which will provide water regularly to the hundreds of thousands of Israeli citizens who live in the area, as well as to the local Arabs, who need the water as much as we do.

"There are four major projects in the works, but none of them are being advanced, and all have become stuck at one point in the other because of the relevant authorities. I call on the authorities to take responsibility and to provide us with a proper water supply, so that we will not have to drag jugs of water up the mountain."

17/07/2017 online at: <http://www.israelnationalnews.com/News/News.aspx/232584>

### **Ramallah suffers serious water shortage**

Families in the Betonya and Al Beirah areas of Ramallah are facing even more serious water shortages. The water supply to residents will be limited to only four days a week, with supply cut off for three consecutive days a week.

The Palestinian Water Authority is taking this action in a bid to cope with inadequate water supply from the Israeli occupation forces.

Betonya Mayor Ribhi Dowla said the occupation forces knew exactly how much water the two densely-populated areas needed.

The population of Betonya is about 45,000, and Al Beirah is home to more than 60,000 people.

Dowla said the pressure of the water received on the four days would not be strong enough to meet the needs of families. It would also be a catastrophic blow to the Palestinian industry and economy, as Betonya was a key industrial area of Ramallah.

He said the water crisis had been made more acute because of the huge heatwave over Palestinian territories and Israel, which leads to increased demand for water to meet domestic needs.

He said the municipality had been sending water tankers to key areas, but this measure could not last long.

He said residents were aware that their lands were rich in water resources and believed it was their natural and undisputed right to be connected to water supply around the clock. He said they paid fees for the service in full and on time. Betonya resident Saeed Safti, urged the Palestinian National Authority to act immediately to solve the crisis.

He said a trade in water tankers was going on in the area, with one tanker costing about 200 Shekels (Dh200), which was beyond the reach of ordinary Palestinian individuals.

Israel captured the West Bank in the 1967 Mideast War and since that occupation, Israel has been in unilateral control of the water resources of the entire region. Israel sells water to the Palestinians of the West Bank via the Mekorot Water Company, after giving Israeli colonists living in the West Bank the lion's share.

13/07/2017 online at: <http://gulfnews.com/news/mena/palestine/ramallah-suffers-serious-water-shortage-1.2058437>

### **Israel cuts water supply to Salfit**

Palestinian municipal authorities in the occupied central West Bank city of Salfit declared a state of emergency after Israel's national water company, Mekorot, completely cut off the water supply to the city.

Factories have been forced to close due to the water shortage while locals are now paying for water deliveries to supply their homes using tankers.

Every summer Israel implements a policy of water cuts against Palestinian communities to meet the increased demand for water in illegal settlements.

Israel controls the majority of water supplies in the occupied territories and provides Palestinians with insufficient water for their daily needs, according to the UN's World Health Organisation's recommend.

17/07/2017 online at: <https://www.middleeastmonitor.com/20170717-israel-cuts-water-supply-to-salfit/>

### **Water pollution in Lebanon reaching dangerous levels**

Lebanese TV network LBCI published a picture June 19 showing a large polluted area along the coastline of Beirut, which then quickly appeared on Lebanese social media networks. A video shared June 1 by the Lebanese Transparency Association, a nongovernmental organization fighting corruption, also showed how badly polluted the water is a few meters below the surface. Although this problem is not new, it seems to reach a new level every year, polluting even underground currents.

“The world’s most beautiful pollution” — that’s how blogger Claude El Khal referred to the coastal waters of Lebanon on his blog after LBCI shared the picture of a brown-colored area in the sea, close to the shore where people usually enjoy a swim in summer. Already in 2002, university student Lena Kakati warned on the Planetary Notions website, a global student platform that addresses topics of environmental importance, “Our natural waste greatly harms our health.”

She wrote, “A cycle forms when we dump our wastes in the water: Fish find it and eat it, and then people catch the fish to have for dinner.”

Since then, nothing seems to have changed, and since the garbage crisis in the summer of 2015 things have only gotten worse. Starting in early June, activists have shared pictures of trucks going from Burj Hammoud, north of Beirut, to the sea to dump trash there. Minister of Environment Tarek al-Khatib said June 13 that as per the contract between the contractor and the Council for Development and Reconstruction, the garbage is to be thrown in the sea.

But the main reason for water pollution in Lebanon is the untreated sewage. “In the last 20 years, the Lebanese government spent more than \$1.5 billion in loans to put in place a water sanitation system,” economist and social activist Jad Chaaban told Al-Monitor.

“It worked in some places but not in Tripoli, Beirut and Batroun at least. The water sanitation stations are just not connected to the sewage network, so the sewage ends up being thrown [without treatment],” he said.

“Pollution also originates from factories that are located near the seaside and that throw chemicals in the sea, and from dumps placed along the seaside in places such as Tyre, Beirut and Tripoli,” Chaaban said. For him, all of this is happening because of “a total lack of governance and a high corruption level. The European Union gives loans to Lebanon, and then the only entity controlling what is done with the loan is the Council for Development and Reconstruction. No independent organization checks what is done with this money — it is a political problem.”

Some private entities, like the Advanced BMI Weight Loss Center, have even speculated on the reasons for the water pollution and have warned citizens to stay away from the seaside. No data can be found to confirm the center’s information, as the National Council for Scientific Research, which studies water quality all year round, did not respond to a request for comment and their publications are private.

In regard to the consequences stemming from water pollution, Chaaban said, “We see a decline in fisheries and the marine ecosystem, which pushes us to import fish instead. [We also note] a decline in tourism and infiltration of the cities’ underwater system, which means this pollution will end up reaching our households.”

“In this case, Lebanon is in clear violation of the Barcelona Convention,” which Lebanon is a signatory of, he added. “It is time the EU stop funding Lebanon for looking after its environment and for our leaders to take real decisions. Nobody can sit on problems like this forever.”

But seawater is not the only water affected by pollution in Lebanon. “We face a major pollution problem — in particular [affecting] the main sources of wells, drinking water and rivers,” said Nada Nehme, who has a doctoral degree in geosciences from the Lebanese University, where she works at the faculty of agricultural science.

“I think especially about the Litani River. All these sources of water are contaminated by microbiological and dangerous chemical agents, which develop every year without a solution. Waste and muddy water are [some of] the causes of pollution, as well as encroachment on public spaces through tourist activities, the presence of restaurants on river banks and the use of pesticides,” Nehme told Al-Monitor.

Safaa Baydoun, a researcher on water science at Beirut Arab University who worked as a researcher on the Litani River, Lake Qaraoun and the upper Litani Basin (groundwater), shared some of her research results with Al-Monitor. “Significant spatial differences have been found between different sites of the Litani River, with the upper Litani exhibiting high levels of dissolved salts, very low levels of dissolved oxygen necessary for the river's aquatic life and very high levels of toxic ammonia and phosphates exceeding by many folds the criteria for short- or long-term exposure in healthy water bodies,” Baydoun said.

She added, “High levels of organic pollutants are also found. Domestic sewage and the overuse of fertilizers by farmers accompanied by runoffs are the underlying causes for the high levels of pollutants. This increased availability of nitrogen and phosphorus can cause excessive growth of algae, which in turn can disrupt the aquatic biological equilibrium leading to the oxygen depletion death of fish and amphibians and a drop in the biodiversity of aquatic plants. This phenomenon is called eutrophication. Better water quality conditions are found in the lower river, possibly due to the role of Lake Qaraoun in reducing the eutrophication level and the role of tributaries in diluting the contamination levels.”

Concerning the quality of water studied in 20 wells across the country, Baydoun said, “Even though less alarming than the general pollution of surface water in the basin, these results clearly show that groundwater quality is also deteriorating.”

She noted, “It is very important that long-term monitoring of groundwater quality is conducted and the Lebanese government should address the governance problem of the water quality sector involving stakeholders at all levels.”

Without this involvement, the health of Lebanese people is directly threatened. “Since 2005, the national epidemiological surveillance program at the Ministry of Public Health has registered significant increasing trends in notifiable water and foodborne diseases,” Baydoun said.

She continued: “In the Bekaa Valley 243 cases were recorded in 2005, 281 cases in 2010, 2,068 cases in 2014 and 909 cases in 2016 — compared to 45, 112, 122 and 74 cases, respectively, in Beirut during the same periods. More specifically, the recent assessment of the EU-funded Sustainable Water Integrated Management project in the Litani Basin on the

prevalence of mortality due to diarrhea caused by poor water and water quality degradation estimates that there are 0.3 cases of deaths on 13 newborns per 1,000 inhabitants in 2012.”

While more activists and scientists voice their concern and request action from the government, this urgent issue still awaits a proper response from the authorities.

11/07/2017 online at: <http://www.al-monitor.com/pulse/originals/2017/07/lebanon-water-pollution-garbage-crisis.html>

### **Jordan welcomes PA-Israel water deal**

Jordan on Thursday welcomed a water agreement reached between the Palestinian Authority (PA) and Israel.

Water Minister Hazem Nasser on Thursday commended the deal, which, he explained, is related to the Jordan-initiated Red Sea-Dead Sea Water Conveyance project, the Jordan News Agency, Petra, reported.

The agreement came as a result of a memorandum of understanding that was signed by Jordan, the Palestinian Authority and Israel in 2013 in Washington DC, which stipulates that Israel provide Palestine with 30 million cubic metres (mcm) of additional water quantities per year.

Nasser said that the agreement ensures a new source of water for Palestinians apart from what had been agreed on in the Oslo Accords between the Palestinian leadership and Israel.

Under the deal, Israel is committed to supplying the West Bank and the Gaza Strip with additional amounts of water as of this summer until 2021. The Red-Dead's first phase is slated to begin in 2018 and finish 2021.

US President Donald Trump's Middle East envoy announced an Israeli-Palestinian water agreement, which is part of the World Bank-sponsored plan to build a nearly 200-km pipeline from the Red Sea to the Dead Sea and a desalination plant in the Jordanian port of Aqaba that was agreed in principle in 2013.

The deal aims to increase fresh water supplies for Jordan, the Palestinians and Israel and revitalize the Dead Sea's falling water levels.

Israeli Regional Cooperation Minister Tzachi Hanegbi, estimated it would take another four to five years to complete the \$900 million endeavor.

The desalination plant will produce at least 80mcm of water annually. Under an agreement signed with Jordan in 2015, Israel will buy up to 40mcm of that at cost each year.

Greenblatt said Israel, whose own desalination plants have led to a water surplus, would sell up to 33mcm meters to the Palestinian Authority as part of the finalized agreement signed on Thursday.

Palestinian Water Authority head Mazen Ghoneim put the figure at 32mcm and said 22mcm would go to the Israeli-occupied West Bank and 10mcm to the Gaza Strip.

“We hope that this deal will contribute to the healing of the Dead Sea and that it will help not only Palestinians and Israelis but Jordanians as well,” Greenblatt said.

“I am proud of the role that the United States and our international partners have played in helping the parties reach this deal and I hope it is a harbinger of things to come.”

The idea of a canal from the Red Sea to the Dead Sea was first talked about by the British in the 1850s, as an alternative to the Suez Canal, according to Reuters.

Many plans have since been proposed, mainly aiming to preserve the Dead Sea, whose minerals are used in ointments and cosmetics.

13/07/2017 online at: <http://www.jordantimes.com/news/local/jordan-welcomes-pa-israel-water-deal>

### **Japan pledges ¥1.4 billion to Jordan to bolster water infrastructure stressed by Syrian refugees**

Japan will fund a new water infrastructure improvement project in Jordan to help the country manage the influx of Syrian refugees, Prime Minister Shinzo Abe said Friday after a meeting with Jordanian Prime Minister Hani al-Mulki in Tokyo.

Abe said the ¥1.4 billion (\$12.3 million) pledge for the project in the governorate of Balqa adds to Japan’s existing efforts to reduce the burden on Jordan’s infrastructure and public services caused by its acceptance of more than 1.3 million refugees from conflict-mired Syria, which lies to the north.

“Today, I again delivered the message that Japan will thoroughly support Jordan, which serves as the linchpin of peace and stability in the region,” Abe said at a joint news conference after the meeting.

“Jordan has made immense efforts in the challenges facing the Middle East, including the prolonged Syrian crisis, refugee issues, terrorism and extremism, not only for its own sake but for peace and stability in the region and the international community,” Abe said.

Al-Mulki said he and Abe agreed on the importance of joint action to tackle extremist ideology.

“Both our countries are determined to fight this evil epidemic on all fronts and dismantle the environment of despair on which terrorism thrives,” al-Mulki said at the news conference.

The leaders confirmed their ongoing commitment to working together on initiatives that foster regional stability, citing the Corridor for Peace and Prosperity development project that includes both Israel and the Palestinian territories along with Japan and Jordan.

Abe and al-Mulki also confirmed their countries will launch negotiations toward a bilateral investment agreement.

Al-Mulki was set to conclude his four-day visit to Japan on Saturday.

15/07/2017 online at: <http://www.japantimes.co.jp/news/2017/07/15/national/politics-diplomacy/japan-pledges-%C2%A51-4-billion-jordan-bolster-water-infrastructure-stressed-syrian-refugees/#.WW3wb4Tyjcs>

### **Minister discusses water cooperation with British delegation**

Minister of Water and Irrigation, Hazem Al- Nasser, Monday, met a British delegation from the Department for International Development for talks on various challenges related to the aftermath of the Syrian refugee crisis.

At the meeting, the minister reviewed issues pertaining to water sector and management after the demand rose to record levels due to the Syrian refugees.

The visiting delegation was briefed on an economy stimulus package implemented by the water sector aimed at creating more jobs, advance the engagement of the private sector in the management and development of water resources so as to make a positive impact on the national economy performance this year.

Al-Nasser appreciated the great support extended by donor nations, particularly Britain and other friendly and brotherly countries to face urgent conditions in the water sector.

The British delegation emphasized the importance of expanding cooperation and providing solutions in the field of water management.

17/07/2017 online at:

[http://petra.gov.jo/Public\\_News/Nws\\_NewsDetails.aspx?Site\\_Id=1&lang=2&NewsID=309974&CatID=13&Type=Home&GType=1](http://petra.gov.jo/Public_News/Nws_NewsDetails.aspx?Site_Id=1&lang=2&NewsID=309974&CatID=13&Type=Home&GType=1)

### **Saudi Arabia to establish three wastewater treatment plants**

Saudi Aramco buys stake in Irish wastewater company | Saudi Aramco to establish new energy industrial city | DSI subsidiary to target Saudi water sector | Tri-Tech wins Saudi water waste contract

The Saudi Arabian ministry of water, environment and agriculture has announced plans to set up wastewater treatment projects in the cities of Jeddah and Dammam besides the northern border region with the help of three global consultant companies.

These projects will be offered to private sector establishments for funding, execution and operations on a build-operate-transfer (BOT) basis, reported Arab News, citing a senior government official. The official did not identify the consultants.

The cost for implementation of the projects' networks, connections and wastewater transmission lines is expected to hit \$586.6m (SAR2.2bn), revealed Mohammed Bin Ahmed Mukli, the undersecretary of the ministry and CEO of the National Water Company (NWC), the government-owned company established to provide water and wastewater treatment services in line with international practices.

The projects in the northern border will cover provinces such as Turaif and Arrar close to the borders with Jordan and Iraq respectively according to the NWC official. The length of the wastewater transmission pipelines will exceed 1,400km for the three projects combined.

The initial project will be a sewage treatment plant near Jeddah airport, which is slated to have a capacity of 500,000m<sup>3</sup> per day, he added.

16/07/2017 online at: <http://www.constructionweekonline.com/article-45391-saudi-arabia-to-establish-three-wastewater-treatment-plants/>

### **Oman firm to invest in water distribution, manufacturing, petrochemicals in Qatar**

Businessmen from Qatar and Oman are expected to launch three projects in various fields to boost the manufacturing sectors of both countries, a company official from Oman said yesterday.

Speaking at a business meeting with Qatar Chamber officials, Zubair Corporation CEO C S Badrinath said the company has three projects "based on partnerships between Qatari and Omani businessmen, which are expected to be launched soon."

"The first project involves water production and distribution under the brand 'Oasis Qatar'; production will be within two months. The second is a factory for electrical transformers, while the third is a factory for petrochemicals," said Badrinath, who was part of a trade delegation from Oman that met with Qatar Chamber vice chairman Mohamed bin Towar al-Kuwari and board member Mohamed bin Ahmed al-Obaidli.

Badrinath said Zubair Corporation was established in 1967 in Oman and entered the Qatari market 45 years ago. The company specialises in contracting, electricity stations, real estate, furnishing, and tourism, he added.

Al-Kuwari said the meeting with the Omani delegation, which included Zubair Corporation chief of corporate communication Mohamed bin Mubarak al-Hassan, revolved around investment opportunities and enterprises in Qatar.

He said Qatar Chamber supports joint cooperation and the enhancement of trade and economic ties between both parties. He also assured the chamber's readiness to provide the delegation with information and data about the Qatari market.

According to al-Kuwari, trade volume between Qatar and Oman stood at QR3bn last year. He said Qatari investments in Oman amounted to 76.5mn Omani riyals (QR727mn) in 2015, and that there are 148 Qatari companies are operating in Oman.

Last month, Qatar Chamber led a Qatari delegation comprising 140 businessmen to explore investment opportunities in Oman, including foodstuffs and building materials.

Al-Kuwari said the business trip “opened opportunities for Omani companies to increase business activities in Qatar.”

“Companies in Oman have considerable expertise in food security, petrochemicals, and industry. Qatar and Oman chambers have signed a cooperation agreement, which helped pave the way for enhancing partnerships between both countries’ private sector.

“Qatar Chamber receives businessmen and companies representatives from Oman on a daily basis. The visits contributed to bridging cooperation ties between both countries’ business sectors,” al-Kuwari said.

16/07/2017 online at: <http://www.gulf-times.com/story/556848/Oman-firm-to-invest-in-water-distribution-manufact>

### **OPWP seeks ministry’s approval for water desalination project in Salalah**

Oman Power and Water Procurement Company (OPWP) plans to build a 22 million imperial gallons per day (100,000 cubic meters per day)-capacity seawater desalination project in Dhofar to meet growing demand for potable water.

The proposed project, which will be given to a private developer on a Build, Own, Operate (BOO) basis, is awaiting approval from the country’s Ministry of Finance (MoF).

OPWP, which oversees procurement of all new water and electricity capacity in the Sultanate, has already started an initiative to find a suitable site for the project, according to the seven-year outlook report released by the company.

The desalination project, called Salalah IV IWP, is expected to generate water in 2022, as the state-owned agency expects the need for a large-scale desalination plant for meeting the growing demand for water. The new project is required to meet an annual average growth of 9 per cent in potable water demand for the next seven years—from 42.6 million cubic meters in 2016 to 78.4 million cubic meters in 2023, noted the seven-year outlook report.

Salalah, the capital of the Dhofar governorate, accounted for around 81 per cent of the total water consumption in 2016. This share is projected to decline slightly over the next seven years due to higher growth rates in the wilayats of Marbat and Taqah. The respective growth rates for the wilayats of Salalah, Marbat and Taqah will be 8 per cent, 13 per cent, and 14 per cent per year during the seven-year period.

Salalah IWPP, owned by Sembcorp Salalah Power and Water Company, is the only source of desalinated water for the Dhofar water network at the moment. The Salalah IWPP has a capacity of around 15 MIGD (million imperial gallons per day), uses reverse osmosis technology, and was commissioned in 2012.

In addition to this desalination capacity, the Directorate General of Water (DGW) uses a network of groundwater sources to meet the balance of water demand. DGW estimates that the groundwater supplies have a total capacity of around 100,000 cubic meters per day to 110,000 cubic meters per day. DGW plans to utilise the desalination plants production to meet peak demand, while using the wells capacity to meet the reserve requirements only.

This is also consistent with the national policy to limit ground well production in order to replenish aquifers.

Meanwhile, the much-awaited 22 MIGD capacity desalination project in Salalah, which was tendered by OPWP last year, is expected to be awarded to a winning developer soon. The plant is expected to be brought into commercial operation in 2020. A number of international developers have participated in the tender for developing the Salalah III project. As many as eight pre-qualified bidders have submitted bids for developing the independent water project.

OPWP had earlier said that these firms comprise a consortium of the International Company for Water and Power Projects, Veolia Middle East and Dhofar International Development and Investment; a consortium between Degremont Middle East and Itochu Corporation; GS Inima Environment, Hyflux, JGC Corporation, Marubeni Corporation, Sembcorp Utilities and Tecnicas de Desalination de Aguas.

16/07/2017 online at: <http://timesofoman.com/article/112972/Business/OPWP-seeks-ministrys-approval-for-water-desalination-project-in-Salalah>

### **Flood water in front of Renaissance Dam will not affect Egypt's water security level: statement**

The Ministry of Water Resources and Irrigation said on Wednesday that water abundance seen in front of the Renaissance Dam is due to the high level of construction in the dam, which led to the formation of a lake, as the amount of water flooding exceeds the drainage, and will not affect Egypt's water security level.

“The Blue Nile flood is known to last from June until the end of September each year.

The river receives great inflow of water and then later on in the year the flow drops,” Hossam al-Imam, spokesperson for the Ministry of Water Resources and Irrigation said in a statement.

He reiterated that the quantities of water present in that lake do not represent any damage to Egypt's water quota.

Egypt fears the dam will affect its historic Nile water share of 55 billion square meters, which it has had access to since the historic 1959 agreement with Sudan.

Ethiopia, meanwhile, has reassured Cairo that its water share will not be affected.

In 2011, Ethiopia started construction on the Renaissance Dam over the Blue Nile River, one of the major sources of the water that forms the River Nile downstream.

The dam is expected to be ready in 2017.

Ethiopians see it as is a great national project and a means of overcoming poverty.

Earlier in June, the Egyptian Foreign Affairs Ministry official spokesperson Ahmed Abu Zeid asserted that Egypt's water security is non-negotiable, saying that it is considered a red line that no one can approach.

When completed, the dam will be the largest hydroelectric power plant in Africa, and one of the largest of its kind in the world. It was estimated in 2016 that the process of filling the dam with water (approximately 74 billion cubic meters) may take between five to 15 years.

According to global calculators of water scarcity, Egypt is already classified as being a water-stressed country, while Ethiopia is classified as being on the brink of water stress.

13/07/2017 online at: <http://www.egyptindependent.com/flood-will-not-affect-egypt-water-security-level/>

### **Egypt fails to make headway as it navigates Nile River talks**

At the first Nile Basin States Summit held June 22 in Entebbe, Uganda, Cairo failed to amend the three clauses it rejects in the Entebbe Agreement. The latter, also known as the Cooperative Framework Agreement, was drafted as part of the Nile Basin Initiative (NBI) and is aimed at regulating use of the river's waters in the 10 countries it flows through. While six of the upstream countries have signed the agreement, Egypt, Sudan and Congo maintain their opposition.

The most important of the three clauses Cairo rejects is the one relating to water security. This one, which addresses the fair use and distribution of Nile water, failed to recognize Egypt's historical annual quota from the Nile River, amounting to 55.5 billion cubic meters of water, or Sudan's 18.5 billion cubic meters in accordance with the 1959 Nile Waters Agreement. Egypt must now pin its hopes on other rounds of negotiations between the heads of state as it calls for another summit in Cairo.

Both the Sudanese and the Ethiopian delegations withdrew from preparatory meetings on the water issue held two days before the Nile Basin States Summit.

Cairo is seeking to resume technical projects and other activities in the Nile Basin that were suspended when Egypt froze its membership in the NBI in 2010 after six countries signed the Entebbe Agreement. In addition to not recognizing Egypt's water quota, the agreement allows upstream countries to build dams, block or store water from the river without prior notice. Cairo believes that the agreement poses a threat to its water security.

The agreement also stipulates that decisions must be voted upon based on a majority system, while Cairo demands decisions be made by consensus as stipulated in the NBI constitutive act because the numerous upstream countries have many common interests, while the downstream countries will be greatly affected by any decisions that do not take their interests into account.

Al-Monitor interviewed Mona Omar, Egypt's former ambassador to South Africa, Denmark and Rwanda, who is now the director of the African Center at the British University in Egypt and assistant to the former Egyptian foreign minister for African affairs.

The interview includes questions about the future of cooperation between Egypt and the other Nile countries and about the feasibility of holding future meetings of heads of the Nile Basin states. The text of the interview follows:

Al-Monitor: What is your take on the future of cooperation between Egypt and the Nile Basin states following the recent summit's failure to reach solutions on the differences over the Entebbe Agreement?

Omar: First of all, I don't agree that the summit was a failure, because it was the first positive step taken in many years. The Nile Basin states' presidents met to discuss the issue, and their differences were technical, not political. Their positions differed given their different interests, and no one expected them to reach a consensus at the first meeting, especially considering that the principles that Egypt is clinging to cannot be waived. Cairo insists that the use of the river water be determined in accordance with the needs of each country and its population. It also insists on the principle of prior notice before any project is started in the upper Nile and to a unanimous voting mechanism instead of a majority one.

As for the fate of future cooperation between the Nile Basin states and Egypt in the event of continued differences, the current Egyptian approach is to strengthen relations with all of the Nile Basin states, all the while entrenching the principle of common interests rather than the interest of one party at the expense of another. The meetings held at the sidelines of international forums among leaders of the Nile states and Egypt confirm that there is an ongoing dialogue and that Egypt is on the right track.

Al-Monitor: Do you expect other similar meetings?

Omar: Egypt has offered to host another summit focusing on cooperation in order to achieve joint development projects away from any points of contention.

Al-Monitor: The Egyptian historical quota of the Nile waters is the main point of contention with the upstream countries. To what extent does the water security clause in the Entebbe Agreement fail to assure Cairo regarding its quota?

Omar: This article has two parts, the first of which is about quota sharing. It wouldn't be fair for water quotas to be distributed without regard for the needs of each country and population. The second part calls for prior notification in accordance with international law. Being a downstream country, Egypt has the right to be notified before any project is started on the Upper Nile so that it can assess the potential danger and negative impact that might ensue as far as the flow of water to it is concerned. Egypt suggested that prior notification should not be made in a bilateral way so that Egypt is not accused of undermining the sovereignty of any state. It said that notification should be made collectively through the NBI. Third, Egypt

objects to the majority voting mechanism stated in the agreement, and instead calls for unanimous voting because the two downstream states are a minority.

Al-Monitor: What is your take on the Nile document submitted by Egypt during the recent summit of Nile Basin states' presidents as an alternative to the Entebbe Agreement?

Omar: I haven't looked at the document yet, but I don't think it included general issues that all countries could have agreed on, and Egypt might have once again incorporated controversial points, thus preventing the upstream countries from adopting it.

Al-Monitor: Can Egypt participate in the NBI activities without being part of the Entebbe Agreement, similar to Sudan?

Omar: The agreement and the NBI are two sides of the same coin, and I wonder how a state objecting to a cooperation mechanism can join the entity behind this very mechanism. Frankly, Sudan's position is incomprehensible. By the way, Congo and South Sudan have not yet signed the agreement. There are still upstream countries whose parliaments have not yet ratified the entry into force of the agreement. I think that by doing so, these countries are keeping a leeway that could lead to the return of Egypt.

Al-Monitor: To what extent are the differences on the Entebbe Agreement related to the Renaissance Dam crisis, in light of the current obstacles hindering the finalization of the dam's impact study?

Omar: Had the article of prior notice in the agreement been approved, and had the issue of equitable quota been based on the Egyptian request, things would have gone smoothly. The current course of the Renaissance Dam negotiations is stalled, which required Egypt to call for an urgent meeting among water ministers in Ethiopia, Sudan and Egypt.

Al-Monitor: Sudanese President Omar al-Bashir did not attend the Nile Basin states summit despite Sudanese media reports of a desire to join the agreement. How do you think Cairo would be affected?

Omar: Sudan's accession to the Entebbe Agreement would weaken [Sudan], being a downstream country, and when Egypt negotiates the principles of respect for historical water rights, it speaks for both downstream states, namely Egypt and Sudan. As for the Renaissance Dam, international reports have shown that it can cause damage and that the first victim would be Sudan. If there are differences between Egypt and the Sudan, then they should be put aside to serve the two countries' interests.

14/07/2017 online at: <http://www.al-monitor.com/pulse/originals/2017/07/egypt-nile-basin-states-summit-water-share-entebbe.html>

### **Egypt faces water insecurity as Ethiopian mega-dam starts filling**

"The land has become very dry," observes Mahmoud Abo Khokha, a farmer from Al Monofeyya governorate, in Egypt's Nile delta. "Drought is no longer predictable; it used to

hit a certain 15 winter days. The whole year's crops could be destroyed because of one week's drought."

Like most farmers round here, he blames Ethiopia. They are under the impression that a massive hydropower dam being built upriver is already affecting their water supply.

In fact, the Grand Ethiopian Renaissance Dam is only starting to store water this month, reports Daily News Egypt, citing Ethiopian officials. The water scarcity farmers have experienced to date has other causes: climate change and the demands of a growing population.

But during the 5-15 years it is expected to take to fill the reservoir behind the 1,800 metre-wide barrage, the Nile's fresh water flow to Egypt may be cut by up to 25%.

"Nobody is telling farmers how to mitigate and adapt to climate change," says Magda Ghoneim, a socio-economist and professor of agricultural development at Ain Shams University. "Adding the pressure of a dam puts Egypt on the verge of catastrophe. Soon enough we won't [find food to] eat."

The challenges for farmers are myriad: new diseases and insects, unprecedented humidity, rising seas contaminating groundwater with salt. Indeed, when Abo Khokha tried pumping underground water to make up for reduced river flow, he found only half the usual volume, with a higher level of salinity.

A study recently published in Nature found that climate change is bringing greater variability in the Nile River flow this century compared to the last. In the Nile's seven-year cycle of flood and drought, the former is becoming heavier, and the latter more extreme.

Egypt's five million feddans (21,000 square kilometres) of crops consume more than 85% of the country's share of Nile water. With an annual supply of 600 cubic metres per person, the country is approaching the UN's "absolute water scarcity" threshold, as the population closes in on 100 million. Water is a sensitive subject.

Although Ethiopia claims to have taken climate change into consideration in the dam's design, the government did everything at the same time: construction and civil works, financing, and social and environmental impact studies, explains Emanuele Fantini, a researcher at IHE Delft Institute for Water Education. "So by the time these studies are concluded, we are already in front of the fait accompli".

Building was under way when the governments of Ethiopia, Egypt and Sudan – sandwiched between the two – in 2016 agreed to commission an independent study from Artelia, a French consultancy. "We are not sure if and when the results will be made public," says Fantini. "They should be made public so that the accuracy can be checked by the international scientific community".

So far, though, there has been little attempt to explain the risks to those at the mercy of the weather and geopolitics.

Alaa al-Zawahri, an Egyptian member of the tripartite committee studying the effects of the dam, tells Climate Home: “There are several scenarios, but nothing certain. Some studies predict a rise in temperature and thus little rain, and others predict more rain”. Diaa al-Qousi, a water specialist who worked for government, says the findings point to heavy rains for the next 30 years, then a huge drop the 60 years that follow.

Asked if the different conclusions have been communicated with farmers, al-Qousi says “farmers would not understand such specialists’ findings”. Government is selective about what it releases to media, adds al-Zawahri: “Some information, like worst case scenarios, might cause unnecessary panic.”

In the absence of reliable information, farmers turn to conspiracy theories and militaristic fantasies.

Qatar “is funding the dam, like it is funding terrorism” to harm Egypt, claims Mohamed Nasr, who owns three feddans in Al Gharbeyya. There is no evidence for this common rumour; the Ethiopian government says it is funding the project nationally.

Ethiopia will not be allowed to alter the balance of water supply along the river, Nasr asserts: “Egypt’s water share is internationally known. If the share is touched, the dam will be completely removed.”<sup>1</sup>

Osama Saad, a farmer in the Upper Egypt governorate of Minya, is more explicit: “People talk about how the president should bomb it.” The idea is not alien to higher level discussions around the dam. Previous leaders have threatened military action.

Yet work on the 6GW dam, a prestige project for the Ethiopian government, has continued unabated.

Al-Zawahri outlines some peaceful options for responding to water stress. The government is looking into telemetry, water-saving irrigation systems, and desalination. A navigational course from Lake Victoria to the Mediterranean is on the table, which would provide eight billion cubic meters more water for Sudan and Egypt. Egypt can also manage its own High Aswan Dam more efficiently to decrease evaporation of water. “These plans are to be applied gradually,” he says.

Water expert al-Qousi is upbeat: “The Egyptian farmer has been cultivating lands for seven thousand years, and has always found a way around water shortages.”

Ghoneim begs to differ. “Farmers have traditional knowledge, which they lived by for a long time. But this knowledge is now falling short,” she says. “It is not an awareness problem that faces farmers, it is an issue of the state obstructing information.”

17/07/2017 online at: <http://www.climatechangenews.com/2017/07/18/egypt-faces-water-insecurity-ethiopian-mega-dam-starts-filling/>

**Morocco to Cooperate with Mekong River Countries on Water Management**

Faithful to its south-south cooperation approach, Morocco signed a Memorandum of Understanding with the Mekong River Commission (MRC) to cooperate in fields relating to sustainable water-resource development and management, underscored the Eurasia review in an article.

The agreement was signed by Morocco's Ambassador to Thailand Abdelilah El Housni and MRC chief executive officer Pham Tuan Phan in the Laotian capital Vientiane on June 29.

“This partnership will foster exchanges and cooperation in water-resource development and management through the sharing of available technical expertise and lessons learned by both parties. Some of the common interests of both parties range from energy to agriculture and food security to water quality,” Eurasia review quoted a statement of the MRC as saying.

The article, by the Jakarta-based veteran journalist Veeramalla Anjiah, underscored that the agreement to cooperate on water management between Morocco and the MRC is a “first of its kind“ that will help the two parties “ultimately promote and enhance public safety and community welfare by fostering research; promote, encourage, and advance safer, more economical, efficient, and environmentally sound system for water-resource development and management”.

With this agreement, surprisingly, Morocco has become the first Arab or African partner of the MRC, an inter-governmental organization established in 1995 by Vietnam, Cambodia, Thailand and Laos to jointly manage the shared water resources of Mekong River.

The author of the article deems that Morocco's quest to broaden its south-south cooperation model to the Mekong region is triggered by the vision of King Mohammed VI who successfully spearheaded the Kingdom's return to its institutional African family, the African Union.

“Morocco is not focusing only on Africa or the Middle East, it is increasingly looking toward the East, especially Southeast Asia,” the journalist said, noting that Morocco's growing interest in south East Asia was reflected last year in the signing of a Treaty of Amity and Cooperation (TAC) with the Association of Southeast Asian Nations (ASEAN).

12/07/2017 online at: <http://northafricapost.com/18752-morocco-cooperate-mekong-river-countries-water-management.html>

## **2.1 Billion Lack Safe Water Access: WHO Report**

A report by WHO and UNICEF shows that 2.1 billion people lack safe drinking water at home and 4.5 billion lack safely managed sanitation.

While billions of people have gained access to drinking water and sanitation services in the last twenty years, WHO's report shows that safe water and sanitation is not necessarily guaranteed, especially in rural areas.

Large populations are put at risk when homes, health facilities, and schools lack soap and water for hand washing. As a result, 361,000 children under 5 years old die every year of diarrhea.

“Safe water, sanitation, and hygiene at home should not be a privilege of only those who are rich or live in urban centers,” says WHO Director General Dr. Tedros Adhanom Ghebreyesus. “These are some of the most basic requirements for human health, and all countries have a responsibility to ensure that everyone can access them.”

In response to health and safety risks like these, Morocco’s water industry has recently boosted investments in safe drinking water.

The African Development Bank, a main donor to Morocco’s water industry, has recently invested EUR 300 million to improve water supply and distribution. As a consequence, there has been a large increase in rural access to clean water and roughly five million people have an improved water quality.

Globally, however, 844 million people do not yet have a basic drinking water service: an estimated 159 million drink untreated water from streams or lakes, sources known to severely spread disease. WHO states that “good hygiene is one of the simplest and most effective ways to prevent the spread of disease.”

For the first time, global health watchdogs are monitoring the percentage of people with hand washing facilities; access to soap and water varies greatly, from 15 percent of the sub-Saharan Africa population to 76 percent in western Asia and northern Africa.

Efforts to increase widespread access to safe water and sanitation facilities remain a global concern. The WHO/UNICEF Joint Monitoring Program for water supply, sanitation and hygiene continues to monitor both regional and global progress, with the goals of attaining universal access to drinking water and sanitation.

By drawing connections between use of basic facilities and quality of life, international organizations strive to make policy decisions and resource allocations that provide equitable access to the resources much of the world already consumes.

13/07/2017 online at: <https://www.morocoworldnews.com/2017/07/223020/lack-safe-water-access-who/>

### **Afghanistan- New Water Resources Strategy Lands in Parliament**

The energy and water minister on Monday presented a new strategy on the country's water resources to the Wolesi Jirga or lower house of the parliament for approval.

Eng. Ali Ahmad Usmani, the minister said, his ministry's studies showed that environmental problems had resulted from the shortage of water in #Afghanistan and as well as Iran's poor management of water resources.

Testifying before a hearing session of the Wolesi Jirga, Usman said the new water resources strategy had three orientations including availability of water, management of water and diplomacy.

All challenges towards construction of dams and environment in #Afghanistan and regional countries including #Iran and #Pakistan had been accurately studied in the new strategy, he said.

The new water resources strategy suggested construction of 40 dams across the country, Usmani added.

'The Ministry of Energy and Water is faced with serious procurement problems, our water resources may be lost if this problem is not resolved, no investor in such a situation shows interest in construction of dams, he said.

The minister said he had no authority in executive affairs and this gave birth to challenges the water resources faced.

Water diplomacy has also been prepared in the new strategy in light of environmental studies in #Afghanistan and neighboring countries, Usmani said.

The minister said #Afghanistan shared one basin with #Pakistan and four with Iran. 'Our neighbors say they are faced with a lack of water, but it is also the fact that #Afghanistan is too faced with the same problem, improper usage of water by our neighbors also create environmental issues i our country, he added.

'Iran has six basins with 600 dams built on them, tens of its dams are built on shared basins with Afghanistan, #Iran has completely blocked the flow of water into #Afghanistan from shared basins by building large number of dams on them, while #Afghanistan has built only Salma Dam on Harirod Basin, he said.

He said studies of his ministry showed environmental problems in #Iran and #Afghanistan resulted from shortage of water and unhealthy management of water by the Iranian government.

Usmani said he was ready to discuss the issues with Iranian authorities. An active diplomacy for solving water related problems with neighboring countries was the need of the hour, he said.

He continued the country's water resources should be controlled and red lines cleared with neighboring countries before discussing the problems.

Wolesi Jirga speaker Abdul Rauf Ibrahimi said: 'We support the demands of the Ministry of Energy and Water for protection of national interests and national water management.

The water management issue is raised after Iranian president's recent remarks on Afghanistan's efforts to build dams.

Iranian leader Hassan Rouhani has criticized construction of several dams in #Afghanistan like Salma dam, Kamal Khan Dam and Kajaki dam and said his government could not stay silent on construction of the dams because the structures blocked water flow in rivers.

However, the Afghan government maintains water issues between #Afghanistan and #Iran have been solved based on agreements of international principles and #Afghanistan uses its own rights.

17/07/2017 online at: <http://www.menafn.com/1095633614/Afghanistan--New-Water-Resources-Strategy-Lands-in-Parliament>

### **Pakistan wastes water worth Rs25bn annually: Wapda chairman**

Water and Power Development Authority (Wapda) Chairman retired Lt Gen Muzamil Hussain during a meeting of the Public Accounts Committee on Wednesday revealed that Pakistan wastes water worth Rs25 billion every year.

Hussain, while briefing the committee, said that although Pakistan receives 145 million acre feet of water every year. However, only 14m acre feet of water is preserved.

The chairman said that due to soil gathering at the base of Tarbela Dam, the storage capacity of the dam has decreased by 36 per cent. Therefore, constructing the Diamer-Bhasha dam is necessary, he added.

Tarbela, one of the world's largest earth-filled dams, was completed in 1978 with the World Bank's assistance under the Indus Water Treaty signed by Pakistan and India.

Owing to continuous silting and sedimentation, the dam's storage capacity has declined from 9.6 million acres feet (MAF) to about 6.6 MAF.

Hussain regretted that only two dams had been built in the country over the past 70 years.

An independent Chinese consultant hired by Wapda to conduct a feasibility study on desilting of the Tarbela dam claimed that desiltation of the dam is not a viable option either economically or technically, and may damage the country's largest power house and reservoir, a senior government official shared with Dawn in an earlier report.

The official said the feasibility study concluded that instead of undertaking such a mammoth exercise it would be more economical to build a new dam of the same size and capacity.

The Wapda chairman in today's briefing informed the committee that the cost of the Neelum-Jhelum power project was Rs4bn in the beginning. Now the project's costs have increased to Rs500bn, he said.

Hussain revealed that all of Wapda projects had incurred a total of Rs300bn in debt.

Annually, about Rs40bn is repaid, of which Rs5bn consists of loans, while Rs35bn comprises annual interest payments, Hussain said. Total annual payments come to about Rs57bn when the project cost is added to this amount, the chairman told the committee.

Rs152bn was paid last year, he said, which was separate from the total debt cost.

Three sukook bonds have been issued since 1987 to raise capital for various Wapda projects, the chairman said. The first bond worth Rs8bn was issued to finance the Mangla Dam, the second worth Rs25bn was issued to raise money for the

The chairman added that since 1987, three sukook bonds have been paid off. The first bond was worth Rs8bn and was issued for Mangla Dam, and the second was worth Rs25bn, he said.

Rs41bn in debt has been paid off against the three bonds with an interest rate of 7.5pc, Hussain said.

PPP's Syed Naveed Qamar said the government had passed on the costs of water supply onto citizens via imposition of tariffs.

Both Awami Muslim League head Sheikh Rashid took issue with work on the Neelum-Jhelum power project.

Rashid said Rs41bn had been paid against "the world's only project initiated without conducting a geological survey", as it stood at the fault line for an earthquake. The area where the project is situated was struck by an earthquake in 2005, a year after work began on it, he said.

12/07/2017 online at: <https://www.dawn.com/news/1344853>

### **Supply restored after Rawal Dam water 'cleared'**

Water supply from the Rawal Dam was restarted on Sunday morning after clearance from three separate laboratories, a spokesperson for the Water and Sanitation Authority (Wasa) told Dawn.

According to Wasa spokesperson Mohammad Umer Farooq, residents of Rawalpindi should use the water without any fear after the Pakistan Council of Research in Water Resources (PCRWR) declared the water fit for human consumption.

Mr Farooq said that samples tested by the Pakistan Environment Protection Agency (Pak-EPA) were also declared fit for consumption.

In addition, the District Water Testing Laboratory of the Public Health Engineering Department has also declared the water samples free of arsenic.

On Saturday, samples from the water were sent to the PCRWR, the National Institute of Health (NIH), and the Pakistan Council of Scientific and Industrial Research (PCSIR).

Samples of the dead fish, meanwhile, were sent to the National Agriculture Research Council (NARC) and the Punjab Forensic Science laboratories in Lahore, and their results are still awaited.

Several local administration and Wasa officials, however, said that initial inquiries suggested that the fish were killed by a lack of oxygen in the water.

The Capital Development Authority's (CDA) own labs, however, have yet to give the water samples a clean chit.

CDA Member Planning Asad Kayani told Dawn the water quality was not 'up to the mark' as the results of the water turbidity test were not satisfactory.

Turbidity is the measure of the relative clarity of any liquid, and in lakes and reservoirs, high turbidity can reduce the amount of light that reaches the lower depths, inhibiting the growth of aquatic plants and affecting the species of fish that are dependent on them.

But according to Punjab Environment Protection Agency (Punjab-EPA) Deputy Director Shahid Hassan, turbidity levels increased in surface water during monsoon when water from catchment areas that is rich in sediment flows into the reservoir.

When asked if the water of Rawal Dam was suitable for drinking, Mr Kayani from CDA said he could not answer that question without the results of a number of chemical and biological tests, which may take another day or two to complete.

"We are also waiting for the results of the coliform bacteria test, which plays a vital role in judging the quality of water," he said.

But according to Wasa, raw water is cleaned at the Rawal Lake Filtration Plant and made safe for human consumption through disinfection with chlorination and lime-dosing before being transported to residents.

The Punjab government has also constituted a committee to probe the pollution of Rawal Dam to ascertain the real reason for the fishes' death, Rawalpindi Mayor Sardar Naseem told Dawn.

He claimed the provincial government was taking steps to prevent pollution in the dam's catchment areas and blamed the tussle between contractors and local fishermen for the recent problems, saying that the government would not spare those involved in fouling the waters.

The provincial government has also tasked Special Branch to compile a detailed report on the rumours of Rawal Lake being poisoned and how they were spread.

Islamabad Deputy Commissioner retired Capt Mushtaq Ahmed told Dawn that a team from the armed forces had also taken samples from the dam for testing. But he was also apprehensive about the cause of the problem.

"This is a local tussle between rival groups over a fishing contract, so there is a possibility that someone could have mixed some substance in the water which was harmful for the fish but not for human beings," he said.

The Wasa spokesperson said that no water shortage was reported in any part of Rawalpindi after the administration rerouted water from Khanpur Dam and over 400 tubewells to supply the garrison city.

17/07/2017 online at: <https://www.dawn.com/news/1345817/supply-restored-after-rawal-dam-water-cleared>

### **UN launches roadmap towards water sustainability in NENA region**

The Food and Agriculture Organization of the United Nations (FAO) launched on Monday a regional project for water efficiency and sustainability in the Near East and North Africa (NENA) region.

The projects, named "Implementing 2030 Agenda for water efficiency/productivity and water sustainability in NENA countries," is meant to help member countries in implementing the 2030 Agenda and contribute to the achievement of Sustainable Development Goals 6 (SDG6).

The beneficiaries of this project are Algeria, Egypt, Iran, Jordan, Lebanon, Morocco, Palestine and Tunisia.

The project is implemented in cooperation with the Swedish International Development Cooperation Agency (SIDA).

"This is a region with the most scarce water resources," said Pasquale Steduto, FAO Regional Strategic Program Coordinator in NENA, adding that this project is formulated in line with the Sustainable Development Goals for 2030, particularly on the domain of water.

The project will also help member countries in achieving SDG 2 by ending hunger, food insecurity and malnutrition and increasing the capacity for agriculture productivity, he said.

The goals will be reached by establishing a robust water accounting system, implementing a series of interventions to increase water efficiency and productivity in selected farming systems as well as ensuring sustainable, socially equitable and human-rights based development.

17/07/2017 online at: [http://news.xinhuanet.com/english/2017-07/17/c\\_136450954.htm](http://news.xinhuanet.com/english/2017-07/17/c_136450954.htm)