

# ORSAM

## ORSAM WATER BULLETIN

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







Issue 188

## **ORSAM WATER BULLETIN**

07 July - 13 July 2014

- **\*** Turkey's water crisis
- Water Resources Becoming a Weapon in Conflicts and Wars: The Case of ISIS's Recent Attacks
- ✤ ISIS Militants Seek Control of Euphrates River
- ✤ Iraq forces beat back fresh militant assault on Haditha
- Iraq, Syria forced to turn to sea for drinking water
- ISIS And Assad Waging A 'Water War,' Draining Key Lake That May Make A Bad Situation Even Worse
- \* ISIS is using Water As a Weapon in Iraq
- \* Iraq faces drinking water shortages due to drop in river levels
- ✤ Baghdad Secretariat announces the completion of the Rusafa great water project
- \* From oasis to wasteland: how Iran's Hamoun Wetlands dried up
- Experts discuss Middle East climate change at JNF workshop
- ✤ UAE Water Aid campaign
- \* Water supply to Karak resumes
- \* Yemen to build desalination plant to overcome water crisis
- **\*** Water use should be a factor in climate policy
- ✤ Following China's Water: A Threat of Scarcity
- \* Dam Projects Ignite a Legal Battle Over Mekong River's Future
- \* Kalabagh dam declared lifeline for future
- **\*** Water must unite, not divide us
- **\*** Without new dams, starvation -& darkness will be our fate



## Turkey's water crisis

Turkey is experiencing a dry summer. The liveliness of the domestic political scene has blinded the general public to an approaching drought and its implications for Turkey's foreign policy decisions. Turkey is both an upper riparian and a lower riparian country; that is, it is at both the high and low points of rivers. Any significant change in rain and water levels in Turkey's dams influences Turkey's foreign policy decisions with regard to its neighbors, particularly Syria and Iraq.

Statistics issued by the ministries concerned with this issue are nowhere close to being optimistic about the future. The level of water in the fresh water collection dams of İstanbul has fallen to 22 percent in July and the hot days of August are still ahead. Long, hot summer days increase not only water consumption but also electricity consumption and surface evaporation in dams.

Electricity consumption is also directly related to the water levels at hydroelectric dams. The Ministry of Energy is already alarmed by the fact that water input into the hydroelectric dams has been less than half of what was expected during the last three months. The numbers are so distressing that experts warn about a natural disaster that will influence electricity production, irrigation and agricultural production, as well as the availability of fresh water.

Such a disaster will have implications for Turkey ranging from increasing trade deficits to an unexpected migration towards coastal cities, and from price increases for a wide variety of consumer goods to inflexibility in Turkey's foreign policy decisions concerning Iraq and Syria.

Given the fact that Turkey's actual neighbors in Iraq and Syria are no longer the regimes in Baghdad and Damascus, but non-state actors such as Syrian opposition group Jabhat al-Nusrah, the so-called



Islamic State of Iraq and the Levant (ISIL) and the nearly independent Iraqi Kurdistan, Turkey's peaceful negotiation capacity concerning water management issues is also limited.

Even if Ankara decides to initiate joint water management diplomacy with its new neighbors, it won't be able to be consistent with all of them. Ankara might be willing to speak to Arbil and carve out a formula that will make both Turkey and Kurdistan happy, but it won't be able and willing to do the same with ISIL. The only diplomacy that ISIL knows for the time being is terrorism, and if left without water at the banks of the Tigris, ISIL will certainly think about penetrating into Turkey to sabotage dam projects such as Ilisu.

In short, the burgeoning water crisis of Turkey is doomed to develop into an international crisis and a security concern for the region.

This is both a challenge and an opportunity. A well-formulated and well-intended water crisis policy in and around Turkey may force the actors of the region to rethink their ideological differences and territorial claims. Iraqi Kurdistan is longing for independence, but Arbil has to be aware that it will always be dependent on the Tigris and Zap rivers -- and hence on Turkey -- for irrigation and fresh water resources. Ankara is already aware of the future opportunities that Iraqi Kurdistan will offer to Turkey. Ankara and Arbil may well turn water cooperation into a basis for cooperation in other areas. Water cooperation is vital and urgent. Once the mechanisms for cooperation and mutual trust concerning water management are created, those same mechanisms and trust will be strong enough to solve other non-water-related problems as well.

One cannot say the same about ISIL. But if a Sunni state will be established in some areas of Syria and Iraq, water cooperation issues relating to both the Tigris and Euphrates rivers must signal to the founders of this state that full independence is neither possible nor desirable. Ideologically speaking



ISIL terrorists may be dreaming about establishing a caliphate, and dreams do not recognize limits. Yet, when it comes to real issues like water management, cooperation is always more productive than conflict. If that future state of Iraqi and Syrian Sunnis hopes for feasible water cooperation with Turkey, they have to understand that they do no good to their future by holding Turkish diplomats and security personnel hostage.

"Turkey's water crisis", 09/07/2014, online at: http://www.todayszaman.com/news-352532-turkeys-water-crisis.html

## BACK TO TOP



## Water Resources Becoming a Weapon in Conflicts and Wars: The Case of ISIS's Recent Attacks

While the use of water resources might lead to a conflict among states, communities and towns, water resources might also become a primary target with the aim of weakening and seizing control of the area during wars and conflicts. Thus, they might be of great strategic importance during these periods. As seen in the past, especially dams and pipelines for water conveyance have been among primary targets during conflicts.

Similar examples have been observed in the countries during the Arab Spring. In September 2011, it was seen in Libya that the water pipeline, conveying water to Tripoli, was seized by pro-Gaddafi groups which cut off the water flow by sabotage. According to the UN reports and specialists, Gaddafi used the Great Man-Made River Project as a means of sabotage to prevent the people in Tripoli from accessing water. It was then reported that pipelines were damaged.

A similar case was seen in Syria during the conflict process in September 2012. The main water pipeline in Aleppo was damaged and the people in the city couldn't access drinking water for a long time. In May 2014, Syrian government's artilleries hit the main pipeline supplying Aleppo with water. Being the largest city of Syria, Aleppo was flooded after direct hit on the water pipelines, leaving the city without water. Such attacks being carried out in Syria where the civil war still prevails will worsen the current humanitarian crisis across the country, which will lead to migration flows both within and out of the country.

In Iraq, on the other hand, the Islamic State of Iraq and al-Sham (ISIS) opened floodgates of the Nuaymiyah Dam on the Euphrates river in Felluce, where they seized control, and thus prevented the Iraqi army from getting closer to the city.



ISIS expansion in Iraq, as well as in Syria, has taken control of upper parts of the Euphrates and Tigris rivers after they leave Turkey's borders. Both Euphrates and Tigris are the two major rivers which provide Syria and Iraq with both food, energy, and drinking water. ISIS uses the water structures conveying water to the region as a means to prevent especially Baghdad and the Shiite population living in southern part of the country from accessing water. While ISIS seizes control of Al-Raqqa dam on the Euphrates river within Syrian borders, it also takes control of the Nuaymiyah Dam on the Euphrates river; Mosul dam on the Tigris river and its neighborhood; and the Samarra Dam on western Baghdad within Iraqi borders.

Last week, the Haditha dam on the Euphrates river which is of great importance to generate hydroelectric power was guarded intensely by the Iraqi army forces against ISIS. Any damage to the aforesaid dam which provides 30 percent of Iraq's electric power supply would lead to blackouts in Baghdad and the country would be destroyed to a great extent as a result of flood with the opening of floodgates.

The Euphrates-Tigris rivers flow from Turkey through Syria and Iraq. Both rivers which are of great importance for hydropower generation, agricultural production and industry of all three countries have played an important role on the relations among themselves since 1960s when certain improvements on basin river waters started. While ISIS gained a major strategic advantage by seizing control of the rivers, this situation poses a major threat for those who live in Iraq and Syria in terms of accessing water. Taking control of water resources in the region during dry summer when the water is needed most is as important as seizing control of energy lines and oil wells. Concern has been raised that ISIS' seizing control of the water resources might pose a threat to water safety in both Syria and Iraq.



#### WATER RESEARCH PROGRAMME -Weekly Bulletin-

"Water Resources Becoming a Weapon in Conflicts and Wars: The Case of ISIS's Recent Attacks", Tuğba Evrim MADEN, ORSAM, 11/07/2014, online at: <u>http://www.orsam.org.tr/en/showArticle.aspx?ID=2664</u>

## BACK TO TOP

WWW.ORSAM.ORG.TR

Süleyman Nazif Sokak No: 12-B Çankaya -Ankara/TURKEY Tel: +90 (312) 430 26 09 Fax: +90 (312) 430 39 48 orsam@orsam.org.tr



## \* ISIS Militants Seek Control of Euphrates River

Islamic State in Iraq and Sham (ISIS) insurgents have made it known that they intend to spread their control along the Euphrates River in Iraq and Syria as well as dominate oil fields of both countries.

In recent days following intense fighting between ISIS militants and the Syrian regime, IS was able to capture key cities and towns in Syria including Raqqa, Mohsen, Abu-Kamal, Almayaddin, the bordering villages of Der-al-zur, areas near the Kurdish city of Kobani and in the Nineveh and Salahaddin Provinces of Iraq.

According to information obtained by BasNews, the ISIS are currently re-organizing themselves in both Iraq and Syria to hold the reigns of the strategic river Euphrates in order to control the water resource of most of the region.

The security source from Mosul further revealed that the ISIS are aiming to take the tributary of the Euphrates River that flows through the Iraqi capital of Baghdad, a new tactic in their plan rule the city.

In February, ISIS took control of Fallujah Dam in the Al Anbar Governorate, north of Baghdad. After insurgents released the dam, waters flooded fields leaving damaged crops. The waters were also meant to force troops around the city to retreat, lessening the manpower against IS militants.

At the time, the Deputy Governor of Baghdad Jassim Bokhaty released a statement warning that the flowing water from Fallujah was threatening to destroy properties and government offices like silos, gas storage, and electricity networks.



In a winning defense against the water weaponry, Peshmarga soldiers have assured that they have complete control of the Mosul Dam in northern Iraq, a source from Peshmerga forces told BasNews. It has been under their control since the start of ISIS' attacks on the region earlier this month.

The Euphrates is the longest and one of the most historically important rivers of Western Asia. From its source at the Murat River to the confluence with the Tigris, the Euphrates runs a length of 3,000 kilometres, of which 1,060 kilometres flows in Iraq, making it an incredibly vital water source for the nearly land-locked country.

"ISIS Militants Seek Control of Euphrates River", 10/072014, online at: http://www.aina.org/news/20140710030822.htm

## BACK TO TOP



## ✤ Iraq forces beat back fresh militant assault on Haditha

Iraqi forces and tribal fighters Saturday beat back a fresh assault by Sunni militants on the town of Haditha, strategic for the large nearby dam and its oil refinery, police said.

Battles also erupted Saturday in the central province of Diyala as security forces fought back against militants who have seized swathes of territory and a string of towns and cities in an offensive launched on June 9.

The violence comes a day before Iraq's deeply-divided politicians are to hold a parliament session aimed at reviving flagging efforts to form a government in the face of the jihadist-led onslaught.

The attack on Haditha, located northwest of Baghdad in Anbar province on the road linking militantheld western areas and the provincial capital, began with mortar fire, police said.

Gunmen travelling in vehicles, including some captured from security forces, then attacked from two sides but were kept from entering the town in fighting that left 13 militants and four police dead, officers and a doctor said.

While there have been previous attacks on Haditha, they have not been on this scale. Capture of the dam by the militants would raise the prospect of it being used to flood towns and villages downstream.

Militants earlier this year caused major flooding by releasing water from another dam in Anbar province.

In Diyala province, meanwhile, security forces and civilian volunteers Saturday launched a push to retake militant-held areas north of Muqdadiyah, a town on a main road to provincial capital Baquba, a police captain said.



In the town of Jalawla, also in Diyala, Kurdish peshmerga fighters began a major operation to expel militants from areas they hold, a senior Kurdish officer said.

Major General Hussein Mansur said Kurdish forces were using tanks and artillery in the battle, and had succeeded in retaking some territory from the militants.

Security forces folded during the initial offensive led by the Islamic State jihadist group, prompting the government to announce that it would arm civilian volunteers, thousands of whom have since signed up.

While security forces have since improved, they are still struggling to make significant gains in offensive operations, and a major push to retake executed dictator Saddam Hussein's hometown Tikrit has made little progress in more than two weeks.

As federal security forces quit their posts in northern areas during the initial fighting, Iraqi Kurds took control of a swathe of disputed territory that they have long wanted to incorporate into their autonomous region over Baghdad's strong objections.

While they have kept areas from being overrun by militants, the move has caused a major escalation in tensions between the Kurdish region and the federal government.

Kurdish authorities on Friday laid claim to disputed northern oilfields in a move slammed by Baghdad, further raising the stakes.

The Baghdad-Kurd row has dimmed the prospects of significant progress in forming a new government when parliament meets on Sunday.

"Iraq forces beat back fresh militant assault on Haditha", 12/07/2014, online at: http://www.globalpost.com/dispatch/news/afp/140712/iraq-forces-beat-back-fresh-militant-assault-haditha

## BACK TO TOP

WWW.ORSAM.ORG.TR

Süleyman Nazif Sokak No: 12-B Çankaya -Ankara/TURKEY Tel: +90 (312) 430 26 09 Fax: +90 (312) 430 39 48 orsam@orsam.org.tr



#### WATER RESEARCH PROGRAMME -Weekly Bulletin-

## \* Iraq, Syria forced to turn to sea for drinking water

*Opinion: Civil war will close off water supply from Tigris, Euphrates The Euphrates and the Tigris, two of biblical Paradise's four rivers, are under attack.* 

The civil wars in Iraq and Syria are now victimizing the rivers themselves. The consequences of the burgeoning water crisis will be an emblem of water's economic future, regardless of its Middle Eastern travails.

With President Bashar Assad and the Islamic State of Syria and Iraq (ISIS) waging total war, Syria's water infrastructure is fast cracking.

The Euphrates Dam, Syria's largest, was taken over by ISIS, and the 85-kilometer-long Lake Assad to which it is attached is anarchically overpumped. The lake's water level has plunged this year alone by six meters and is but one meter away from failing to supply 4 million people who rely on it for drinking water, according to <u>a recent report by Chatham House.</u>

In Aleppo thousands are waterless and are drinking from puddles after one or more of the warring sides knocked out a local pumping plant. South of there, in Homs, sewage is flowing in water pipes after a water-treatment plant suffered a direct hit, sending millions to boil water in the intermittent occasions when it drips from the faucet. Experts now fear a humanitarian catastrophe, regardless of the war's political results, as contamination flows downstream, to Iraq.

Diplomacy has contaminated the river's multinational course no less than physical pollution.

Turkey, the power upstream from Iraq, has reduced in the past the Euphrates' flow by damming it for hydroelectricity. Now, as part of its hostility to both Syria and ISIS, Turkey is again squeezing the water pipe. Prewar coordination between Ankara and Damascus is now unthinkable, thus increasing water's theft and mismanagement in Syria.

Finally, as if war and politics are not catastrophic enough, eight years of drought had brought Syria's farming sector to its knees even before the civil war's outbreak, as wheat output plunged to a fifth of its previous levels. The consequent emigration of jobless millions from farm to town is part of what ignited the anti-Assad revolt.

Where, then, does all this lead?



## ISIS took the water

Alongside their political breakups, Syria and Iraq are also decomposing economically. Thus, a scramble for the embattled region's riches is underway.

On oil, ISIS has the lower hand, even after its seizure of al-Omar, Syria's largest oil field. While a blow to Assad, this is no bonanza for ISIS, as Syria's oil reserves are small and dwindling. <u>As this column has already noted</u>, the emerging Sunni state will not be able to rely on Iraqi oil either, because God placed it with the Shiites and Kurds. What the Sunnis can have is the water.

Having taken the cities of Raqqa, on the Euphrates in northern Syria, and Mosul, on the Tigris in northern Iraq, ISIS now sits upstream its enemies' water. This has far reaching repercussions, both constructive and destructive.

With water ISIS can potentially cultivate a farming industry that would feed and employ many of the 25 million Sunnis it purports to lead.

"Iraq, Syria forced to turn to sea for drinking water", 09/07/2014, online at: http://www.marketwatch.com/story/iraq-syria-forced-to-turn-to-sea-fordrinking-water-2014-07-09

## BACK TO TOP



## ISIS And Assad Waging A 'Water War,' Draining Key Lake That May Make A Bad Situation Even Worse

Syrian militants and government forces are waging a "water war" for control of the country's scarce resource, increasing the likelihood they may trigger a major humanitarian crisis: Lake Assad, which supplies drinking water and irrigation supplies for about five million people, <u>is drying up</u>.

Nouar Shamout, a researcher at Chatham House, a London-based policy institute, explained that the use of water supplies as a tactical weapon could "escalate fatalities and migration rates" in the country's civil war, which is now in its third year.

If Lake Assad loses an additional three feet, "the water system will stop working," he wrote in <u>a June</u> <u>24 commentary</u>. "This could result in a humanitarian catastrophe that would overwhelm agencies on the ground. … In spite of these alarming indications, both Syria's regime and opposition groups are in a state of denial: neither is responding to, or preparing for, a food and water crisis."

Under the watch of the Islamic State of Iraq and Syria (ISIS) <u>recently remamed</u> The Islamic State --Lake Assad has experienced a record 20-foot (6-meter) drop in water levels, <u>Al Jazeera reported</u>. Pumps used to bring water east and west are now either entirely out of service or are supplying only a relative drip of water to residents in Aleppo and Al Raqqa, who are forced to draw water from unreliable and potentially contaminated sources, such as puddles in the streets.

The shortages come as Syria enters its eighth summer of drought; they risk exacerbating an ongoing widespread water and food crisis, experts say.



Lake Assad is likely being drained by overuse at Syria's largest hydroelectric facility, the Euphrates Dam. A spike in electricity generation is draining the reservoir at an excessively fast pace, according to Al Jazeera.

The lake "is pumping out more than it is receiving," Waleed Zayat, a mechanical engineer working for the Syrian opposition's interim government, told Al Jazeera. "This is because the electricity generators are working 24 hours a day, more than they should be."

Both the Islamic State group and the Syrian government appear to be culpable in overusing the dam. The rebels, who have military control of the facility, also control the energy it produces and where it is delivered. But Bashar al-Assad's regime also requires that the administration send electricity to government-controlled areas, like Hama, an anonymous member of the Syrian opposition coalition told Al Jazeera.

,,

## BACK TO TOP

<sup>&</sup>quot;ISIS And Assad Waging A 'Water War,' Draining Key Lake That May Make A Bad Situation Even Worse", 07/07/2014, online at: <u>http://www.ibtimes.com/isis-assad-waging-water-war-draining-key-lake-may-make-bad-situation-even-worse-1620790</u>



## ✤ ISIS is Using Water As a Weapon in Iraq

According to a <u>report</u> by meterologist Eric Holthaus, militant groups in Iraq are taking advantage of the country's drought, squeezing Baghdad by controlling the water flow to the capital. "ISIS is starting to use dams as weapon of war," he says. "So they've made [it] high on their list to take over those dams and control the water downstream."

In places like Mosul, the city in northern Iraq where ISIS (also referred to as IS) began its current string of conquests, they've already done so. That allows them to control the flow of water to the Shiite areas in the south. Reporter John Vidal, in The Mail and Guardian,<u>explained</u> how the Iraqi goverment is scrambling to defend its natural resources:

"Last week Iraqi troops were rushed to defend the massive 8km (4.9mi)-long Haditha Dam and its hydroelectric works on the Euphrates to stop it falling into the hands of IS forces. Were the dam to fall, say analysts, [ISIS] would control much of Iraq's electricity and the rebels might fatally tighten their grip on Baghdad."

With the drought continuing, the amount of water will only shrink, increasing its importance and making it all the more valuable to control. And global climate change is likely to make Iraq warmer and drier, another bad sign for future stability.

In a study published the journal Science, researchers from UC Berkeley looked for links beteween aspects of climate change and violence. In <u>every one of the previous studies</u> they examined, they wrote, there was "a positive relationship between high temperatures and greater violence."

While the study is new, such knowledge is pretty old. The connection between weather and political unrest does and will continue to play a part in Iraq.

HHHIOROADAN CROAT



And while climate change certainly isn't the root cause for unrest in Iraq or the rest of the Middle East, Holthaus says that climate change isn't making life better in the region.

"If you have persistent drying and more frequent droughts, more weather instability and higher temperatures, then that's aggravating the situation," he says. "If you have an underlying tension, [climate change] gives it more and more chances for that tension to explode into violence."

"ISIS is Using Water As a Weapon in Iraq", 10/07/2014, online at: http://www.iraqdailyjournal.com/story-z9395067

## BACK TO TOP



## **\*** Iraq faces drinking water shortages due to drop in river levels

Major Iraqi cities are facing water shortages as rivers Tigris and Euphrates shrink away from their banks, according to the parliamentary commission on water and agriculture.

Water and agriculture commission in the Iraqi parliament has said that water levels in the two rivers have receded dangerously in the past few weeks.

Conditions were most serious in the Province of Basra where low water flow from the two rivers was too low to operate water purification projects properly.

Basra is fed by a canal upstream Shatt al-Arab, a river formed by the confluence of the Tigris and Euphrates at the town of Al-Qurna north of Basra.

The canal is the only way to feed Basra's drinking water plants because Shatt al-Arab carries a high degree of salinity that is close to the level of salinity in sea water.

But the commission speaks of "acute water shortages" across the country with the current hot summer months being the worst so far.

Fuad Kadhem, a commission member said, the control by militants from the Islamic State in Iraq and Syria of cities and dams upstream the Tigris and Euphrates rivers in the northern and western parts of the country, has aggravate the shortages.

"There are areas and dams in the Province of Nineveh and the Province of Anbar which have been targeted by armed men," he said.

Kadhem also blamed Turkey in whose mountains the Tigris and Euphrates originate.



"Turkey was not allowing the volume of water that is allocated to Iraq under international agreements from reaching the country," he said.

The head of the water department in Basra Province said he has been forced not to operate water

pumps anymore because they lack the capacity to go deeper and pick water from the plunging water

levels.

He said his department needed more forceful pumps for its water purification plants.

"Iraq faces drinking water shortages due to drop in river levels", 10/07/2014, online at: <u>http://www.azzaman.com/english/?p=1421</u>

## BACK TO TOP



## \* Baghdad Secretariat announces the completion of the Rusafa great water project

Baghdad Secretariat said that "the French company Degremont allied with two companies completed the implementation of Iraqi Rusafa water project, which is the biggest in the Middle East."

The project will produce approximately 910 thousand cubic meters per day of pure water to eliminate shortages, especially in Rusafa, Needing dam as well as the future capital until the year 2030 and provide a surplus to grant to the districts of the parties.

The Secretariat added that "officially opened and entering active service will be in the coming days."

Referred to "the use of the latest technology and the most advanced in the world in the implementation of the project in terms of filtering water and prevent any pathogens and to ensure arrival at the consumer in accordance with the technical specifications approved by the World Health Organization and increase per capita Baghdadi daily drinking according to the determinants of the world."

Also said, "The project consists of four main sections the first of the outlet on the Tigris River and includes preliminary filter elements and pumping station for the raw water , the second section carrier lines between the outlet and the treatment plant and the number 5 lines and Section III treatment plant and located approximately 3.5 km east of the river and includes 16 sedimentation ponds and filtration basins to ensure the nomination of 14 units."

He explained that "sections of the other project include chemical plant and reservoirs of pure water of 90 thousand cubic meters per tank and pumping station of pure water and transmission lines from the pumping station to the points and reservoirs distribution in Karkh and Rusafa a length of 70 km in diameters ranging from 1400 to 1800 mm."

He said the "distribution of pure water from the project to the neighborhoods of the capital Baghdad will be 7 by 2 lines diameter of 1600 mm which is moving towards the embankment and pass areas and the people of Ur and Iiaalbh and seven palaces and Obeidi grainary and perfectionism municipalities."



#### WATER RESEARCH PROGRAMME -Weekly Bulletin-

The statement continued, "The two other diameter of 1800 mm are moving toward neighborhood orchards and cross channel army and connects to the network key between the areas of woke Arab and Highway", noting that "the three tubes again heading towards the embankment near the Tigris River and connects to the existing network near a bridge in Al-Muthanna, with the possibility the transfer of water to the Karkh.

"Baghdad Secretariat announces the completion of the Rusafa great water project ", 12/07/2014, online at: <u>http://www.oneiraqidinar.com/baghdad-secretariat-announces-completion-rusafa-great-water-project/</u>

## BACK TO TOP



## From oasis to wasteland: how Iran's Hamoun Wetlands dried up

The Iranian province of Sistan and Baluchestan - once known as 'Iran's granary', and home to the Hamoun Wetlands - is now a dustbowl. In the place of what was once a thriving oasis, powerful sandstorms have buried villages and ruined livelihoods.

More than 60% of the population relied on the wetlands for their everyday needs. But as the wetland's principal source of water [the Helmand River, also known as the Hirmand River] was reduced to little more than a trickle, water levels started to drop. 15 years ago, it dried up completely.

The main culprit lies further upstream, across the Iranian border in Afghanistan. Here, the **construction of the Kamal Khan Dam** has completely blocked the river. With no source of water, the wetlands that once straddled both sides of the border and stretched well into Iran have disappeared.

If the lack of water is one problem, the massive amount of sand residue left on the pond has left a further unforeseen consequence. In Sistan and Baluchestan, powerful winds that blow from May to September - the 'Wind of 120 Days' — whip up the sand and create powerful sandstorms.

According to our Observer in the region, the winds pick up so much sand from the surface of the dried-up Hamoun Wetlands that many villages have been completely buried.

"Mohamad lives in the town of Zahedan.

Sandstorms are a new phenomenon in our province. We always had lots of wind, but after the pond dried up 15 years ago we've now got sand and dust storms for 200 days of the year.



It's worth mentioning the trafficking of fuel between Iran and Afghanistan. That could also have played a role in the drying up of the wetlands. They drive across the wetlands because it's a shortcut, and that speeds up the process of soil erosion. But we shouldn't forget that the growth of this illegal traffic is a direct consequence of the drying up of the wetlands in the first place, which left many people here without jobs."

These sand and dust storms reach everywhere imaginable. The level of air pollution here is several times higher than normal. Our province has become the center of tuberculosis in Iran.

Sometimes these storms are so big they block roads, trap people in their homes and swallow up entire villages, forcing people to leave. Last year in just a few days, 100 villages were buried in sand. Many are now ghost villages

The problem is that Afghanistan doesn't give Iran its share of water from the Helmand River. The river is the most important source of water for the Hamoun Wetlands. They built a dam across the Helmand in their territory and we don't get our share of the water. They only open the gates of the dam when it's too full and there's a risk of a breach. That's another problem: it leads to flooding in areas downstream which destroys homes and roads.

Our government says they are negotiating with the Afghan authorities, but they just talk. They do nothing, and nothing has changed. People say here that the United States decides what happens in Afghanistan. They don't care about us here in Iran. On the other hand, the government of Iran has done nothing to try to stabilize the sands by using mulch or other methods.



#### WATER RESEARCH PROGRAMME -Weekly Bulletin-

"From oasis to wasteland: how Iran's Hamoun Wetlands dried up", 11/07/2014, online at: http://observers.france24.com/content/20140711-oasis-wasteland-how-iran-hamoun-wetlands-dried

BACK TO TOP



## **\*** Experts discuss Middle East climate change at JNF workshop

Climate changes in the area are expected to cause extreme phenomena like massive flooding and droughts, as well as soil erosion and disappearance of plant life.

By Zafrir Rinat | Jul. 3, 2014

Experts attended a Jewish National Fund workshop this week set up to discuss the effect of climate change on the region. The workshop focused on the Negev, as well as other parts of Israel. Some participants sought to send the message that there has been a decrease in ecological activity due to climate change and human activity, and that intervention is necessary to restore the situation. Many nature preservation groups, however, are weary of human intervention in ecological processes, and are demanding that the situation be reexamined.

Climate changes in the area are expected to cause extreme phenomena like massive flooding and droughts, as well as soil erosion and disappearance of plant life. According to one participant at the conference, Prof. Moshe Shahak of Ben-Gurion University, results of climate change can already be seen in the Negev, and the same will soon be true for other parts of the country. Overgrazing and construction in open areas are expected to cause damage to both the views and natural resources in Israel as well.

The JNF has been especially active in the northern Negev during the last few decades. Projects in the area include collecting floodwater, and successfully diverting it to avoid damage to soil and limiting grazing to preserve plant life in areas included in the national forestry plan. The project also includes creating small reservoirs of flood water for planting trees, as well as building mounds of dirt to divert



floodwater. These projects require the use of heavy equipment, which some claim is causing damage to the soil as well.

According to Yitzhak Moshe, an official in the JNF's southern sector, the projects in the northern Negev are based on ancient agricultural processes that were common in the area, and help not only to preserve the soil but to create a wide variety of plant life. David Brand, the JNF's chief forester, says trees that can withstand dry weather are being planted as a means of coping with climate change. Studies show extensive damage already to ecological mechanisms in the Negev meant to preserve natural resources, including the ecosystem's ability to make use of flood water. Research further shows that a few years of drought have killed many bushes, which has led to increased soil erosion during flooding, which in turn damages land fertility. In some areas, the number of plant species has diminished while desertification has increased.

According to Brand, as long as desertification intensifies, there is no choice but to bring in engineers to ensure that floodwaters remain in the ecosystem and do their ecological duty of helping to sustain plant life. Without the JNF's projects in the area, it will be impossible to reverse the damage already done. Brand admits that bringing in the heavy equipment needed to build the projects also damages the soil, but he claims that this damage can be undone within a decade, whereas reversing the desertification process could take centuries without human intervention.

The JNF's projects in the northern Negev have come under harsh criticism recently from the Israeli Parks and Nature Authority, as well from as the Society for the Protection of Nature in Israel. The two organizations claim that the JNF's projects are actually causing damage to the ecosystem, rather than rehabilitating it.



In a position paper on planting in the Negev, Parks and Nature Authority chief scientist Yehoshua Shkedi wrote that the authority is also involved in rehabilitating the northern Negev, and that although there is need for human intervention in the ecological processes there, it is preferable in most areas that heavy equipment not be used due to the long-term damage caused to the soil. According to Shkedi, the JNF and the Parks and Nature Authority have come to agreements in the past over which areas are not in need of projects requiring heavy equipment, but that these agreements have not been upheld.

Brand, on the other hand, claims that all of the JNF's construction has been presented to government committees that monitor the national forestry plans, which were devised by the Environmental Protection Ministry and approved by the Parks and Nature Authority.

The JNF projects, according to Shkedi, are causing comprehensive changes to the ecosystem in the northern Negev. Aside from the direct damage caused by the heavy equipment, Shkedi claims that the projects are changing the plant species, and that species unique to the Negev are disappearing, giving way to more common species that are better adapted to the new conditions. Shkedi pointed out that the argument is not over the need for intervention, but rather the amount of intervention necessary to repair the situation.

## BACK TO TOP

<sup>&</sup>quot;Experts discuss Middle East climate change at JNF workshop", Haaretz, 07/07/2014, online at: <a href="http://mideastenvironment.apps01.yorku.ca/2014/07/experts-discuss-middle-east-climate-change-at-jnf-workshop-haaretz/">http://mideastenvironment.apps01.yorku.ca/2014/07/experts-discuss-middle-east-climate-change-at-jnf-workshop-haaretz/</a>



## **\*** UAE Water Aid campaign

How UAE Water Aid can potentially help 2 billion Muslims

Sunday, 6 July 2014

The recently launched UAE Water Aid campaign is aiming to assist 5 million people in desperate need of clean water around the world, but the actual beneficiaries might well be the entire global Muslim population of 2 billion people.

This would certainly be the case if we look deeper into the noble and human essence of this campaign, launched by HE Sheikh Mohammad bin Rashid al-Maktoum of Dubai as a nationwide charity initiative marking the beginning of the Muslim holy month of Ramadan.

See also: Al Arabiya News supports UAE Water Aid, here is how you can help

In fact, the campaign couldn't have come at a better time than this, as the Muslim World suffers – perhaps now more than ever – a horrid and unprecedented hijacking of our religion by vicious extremists who have done nothing for Islam except tarnish its image and create misunderstanding and hatred.

Unfortunately, the Muslim World has come to a point where it has to decide, once and for all, where it stands in terms of direction, ideology and practices.

On one hand, we have the evil likes of ISIS and al-Qaeda, who will not hesitate to decapitate people of other faiths, or even their own, if they disagree with their terrorist practices of killing, grabbing land and consolidating power for nothing except for their own agenda.



On the other hand, you have those genuinely good people who are have opted to support a campaign like UAE Water Aid – a campaign which is truly borderless, as it pays no attention to race, color or religious belief of its beneficiaries.

As such, by supporting this campaign we would in other words be helping to save the lives of millions of people of all faiths and races who would have otherwise died of thirst or diseases related to the lack of clean water. Surely, such actions better reflect Islam as a religion of peace and tolerance than the despicable, horrific acts that the likes of ISIS falsely undergo in the name of the religion.

See also: Humanitarian hydro-aid: Is water scarcity drowning the Mideast?

Indeed, according to charity Water.Org there are 780 million people around the world who lack access to clean water (that is more than 2.5 times the population of the USA), while 3.4 million people die every year from a water related disease (and a child dies every 21 seconds from the same reason!)

Infographic: UAE water aid (Design by Farwa Rizwan/ Al Arabiya News)

As such, choosing which version of Islam to support is a decision for us make; and with nearly 90 million AED raised already during the first nine days of UAE Water Aid (which already covers the needs of nearly 70% of the 5 million people targeted by the campaign), I think the people in the UAE has clearly given an indicator of where their heart lies.



There are 780 million people around the world who lack access to clean water (that is more than 2.5 times the population of the USA

Faisal J. Abbas

The one thing I would really like to see is how the British or American press will cover the results of this noble campaign when it surpasses – as I expect – its target by the end of Ramadan.

Surely saving the lives of 5 million people around the world must be a story worth writing about, and given all the negative stories about Islam and Muslims in international press, I think it is only fair that initiatives like UAE Water Aid get their fair share of column inches.

Humanitarian hydro-aid: Is water scarcity drowning the Mideast? - Al Arabiya

by Dr. Hussein A. Amery | Special to Al Arabiya News

Friday, 4 July 2014

Water is at the core of every living thing and is often a blessing – yet its absence, excess availability or contamination, can be calamitous. So much so that a U.N. Human Development Report states that "Across much of the developing world unclean water is an immeasurably greater threat to human security than violent conflict". Hence the current global water crisis is mostly a (mis)management crisis.

Having an adequate water infrastructure is an important step towards water development and management. The UAE Suqia Water Aid initiative that was initiated by Sheikh Mohammed bin Rashid al-Maktoum, the Vice-President and Prime Minister of the UAE will provide needy countries



#### WATER RESEARCH PROGRAMME -Weekly Bulletin-

with water pumps, water purification systems, and will help them dig water wells. These technologies cover water quantity and quality, and would undoubtedly provide welcome relief to Arabs and non-Arabs who don't have access to clean water supplies.

"UAE Water Aid campaign", Al Arabiya, 06/07/2014, online at: http://mideastenvironment.apps01.yorku.ca/2014/07/uae-water-aid-campaign-al-arabiya/

## BACK TO TOP



## **\*** Water supply to Karak resumes

AMMAN — Wells and water stations in Karak Governorate resumed pumping at full capacity by Wednesday after power cuts and malfunctions disrupted water distribution, according to officials.

The Sultani-Ghweir pipe, the main supplier of water to Karak, malfunctioned on Monday night, according to Water Authority of Jordan (WAJ) Secretary General Tawfik Habashneh, who noted that wells and pumping stations in Karak also shut down due to power outages.

"Some of the Allajoun wells in Karak, as well as pumping stations in Sultani and Allajoun, stopped pumping water due to power cuts, which disrupted the water distribution programme and left the majority of Karak residents without water," Habashneh said in a statement.

The Sultani-Ghweir carrier also malfunctioned for 15 hours, before WAJ technical teams were able to fix it, an official at the Ministry of Water and Irrigation said, noting that partial water supply to Karak resumed on Tuesday morning, while the water distribution programme went back to normal by Wednesday morning.

"The water supply in Karak is now smooth," the official told The Jordan Times on condition of anonymity.

Karak, situated 120 kilometres south of Amman, has a population of 170,000 people, according to the Department of Statistics.

The governorate is home to several of the country's main wells, streams and dams.

Water per capita in Karak stands at 165 litres per day, according to the ministry, which described the amount as above average.

However, 60 per cent of the supplied water is lost through leakage due to violations and deteriorated water networks, pipes and pumping stations.

"Water supply to Karak resumes", Jordan Times, 07/07/2014, online at: http://mideastenvironment.apps01.yorku.ca/2014/07/water-supply-to-karak-resumes-jordan-times/

## BACK TO TOP



## **\*** Yemen to build desalination plant to overcome water crisis

In an interview last month, Yemen Water and Environment Minister, Abdulsalam Razzaz explained that the country has already devised of a plan which should alleviate water scarcity issues as well as help towards providing electricity.

In collaboration with its regional partners, Yemen is set to build its first desalination plan. The project will cost an estimated \$300 million and will help Yemen cope with its growing water demands at a time when its natural aqua-resources have been dangerously depleted by irresponsible Qat farming and wells digging.

According to Minister Razzaz, Yemen suffers from "the most water shortages in the Arab region." He pointed to Yemen's increasing population growth rates and limited rainfall for the exacerbation of the country water crisis, noting that at its current state Yemen would soon be unable to sustain its supplies.

"The precarious water situation in Yemen can be better appreciated when you consider it is the only country in the world that uses groundwater for agriculture, industry and for drinking," explained the minister. This has dangerously depleted Yemen underground water reserves, which reserves cannot be replenished easily.

Several experts have actually warned that the country was already beyond the point of safe return when it came to its water resources.

With nowhere left to dig, Yemen has therefore to think outside the box. Sea water desalination said the minister is a perfect solution, not only for Yemen but for the region as well as Yemen's partners in the project will to benefit from the plant.

Minister Razzaz confirmed that an agreement will soon be signed with the Saudi Fund for Development to organizing the financing of the project. The plant will provide water for the



#### WATER RESEARCH PROGRAMME -Weekly Bulletin-

provinces of Taiz, Lahj, Aden and Ibb. Within the next decade the desalination plant will also be able

to supply the capital, Sana'a.

"Yemen to build desalination plant to overcome water crisis", AFED, 07/07/2014, online at: <u>http://mideastenvironment.apps01.yorku.ca/2014/07/yemen-to-build-desalination-plant-to-overcome-water-crisis-afed/</u>

## BACK TO TOP



## **\*** Water use should be a factor in climate policy

Technology, policies or plans that aim to reduce carbon emissions should also take factors such as water use into account, especially in dry countries like Australia, according to research out of Monash University.

A more integrated approach might make some options considerably more attractive than others, Dr Philip Wallis of Monash University in Australia and colleagues found, in an article published in Climatic Change.

The researchers considered Australia to show how water use influences the appeal of certain preferred mitigation options.

They analysed 74 options that were ranked in the influential "Low Carbon Growth Plan for Australia" in 2010, and together could help Australia cut its 2000 emission levels by 25 per cent by 2020.

The options varied considerably as to how much water each one uses. Energy efficiency measures were found to reduce water consumption, as did measures in the power sector generally.

Renewable options such as solar thermal power only moderately impact water consumption. Further reductions are possible by tapping into existing power-related water supplies or using air or salt-water cooling.

"Water use should be a factor in climate policy", 11/07/2014, online at: <u>http://www.eco-business.com/news/water-use-should-be-factor-climate-policy/</u>

BACK TO TOP

WWW.ORSAM.ORG.TR

Süleyman Nazif Sokak No: 12-B Çankaya -Ankara/TURKEY Tel: +90 (312) 430 26 09 Fax: +90 (312) 430 39 48 orsam@orsam.org.tr



## Following China's Water: A Threat of Scarcity

A new study of the flow of water around China's many provinces has revealed an alarming disparity in access. Climate change concerns have the <u>environmentally conscious country</u> already trying to balance this water wealth, but researchers are suggesting that there is a better way.

As the Earth's <u>precipitation patterns continue to change</u> with global climate, many regions are becoming increasingly water-starved. Last month *Nature World News* reported on the <u>developing</u> <u>water crisis in Iran</u>, one started by a warming climate and natural conditions and exasperated by poor management of precious resources.

Now, experts have turned their attention to China, whose massive industrial sector, urban sector, and simple population numbers could potentially turn encroaching drought conditions into another water crisis.

According to a study conducted as a collaboration between the International Institute for Applied Systems Analysis (IIASA) and the University of Maryland, water is distributed unevenly in China, with water most scarce in northern provinces while wealthier southern regions draw on limited northern supplies.

To make things worse trade between the provinces exacerbates this problem. IIASA researcher Laixiang Sun, a study co-author, explained how this works in a recent <u>statement.</u>

"When goods and services are exchanged, so is virtual water," he said. "For example, it takes about 1,600 cubic meters of actual water to produce one metric ton of wheat. When a country or region imports a ton of wheat instead of producing it domestically, it saves most of that."

The study, published in the journal *Environmental Science & Technology* details how researchers traced the "hidden water footprint" of trade, finding that while international imports can lessen the water burden in strained regions, inter-province trade is just making things worse.



"Importing water-intensive goods from one water-scarce region to another doesn't solve the problem of water scarcity - it just shifts the pressure to other regions," said co-author Klaus Hubacek. According to the researchers, China has already launched a multi-billion dollar water transfer project to transfer water from the south to the north. However, they claim that unless the country acknowledges the water burden of its provincial trade, this initiative will only delay the inevitable. "With the fast growth of China's economy, and increasing urbanization, this [scarcity] trend is likely to continue in the next few decades," Sun concluded.

"Following China's Water: A Threat of Scarcity", 08/07/2014, online at: http://www.natureworldnews.com/articles/7963/20140708/following-chinas-water-threat-scarcity.htm

## BACK TO TOP



## **\*** Dam Projects Ignite a Legal Battle Over Mekong River's Future

On a remote stretch of the Mekong River in northern Laos, the silence is broken by the dull boom of dynamite. This is the site of the Xayaburi Dam, the first dam being built on the main stem of the river south of the Chinese border.

Concrete terraces now climb the steep riverbanks, and engineers estimate the project is one-third complete. If work remains on schedule, the 107-foot-tall (33 meters) Xayaburi will block the river by February. As the dam rises, however, the controversy around it is deepening.

The Xayaburi is endorsed by the Laotian government, which has stated its ambition to become the "battery of Southeast Asia," and financed by Thai investors who are eager to supply their nation's booming cities with electricity. But the project, along with several other large dams proposed downstream, are vehemently opposed by Cambodia, Vietnam, and many environmental organizations because of their threats to the river and those who depend on it.

The Mekong, which roughly translates to "mother of water" in the Lao and Thai languages, is the longest river in Southeast Asia. Running for more than 2,700 miles (4,345 kilometers) from the Tibetan Plateau to its delta in southern Vietnam, it is the largest inland fishery in the world and an essential part of the region's food supply: An estimated 50 million people live on the free protein its fish provide.

"The dams would be a disaster of epic proportions," says Kraisak Choonhavan, a longtime Thai politician and progressive activist.

BACK TO TOP

<sup>&</sup>quot;Dam Projects Ignite a Legal Battle Over Mekong River's Future", 11/07/2014, online at: <u>http://news.nationalgeographic.com/news/special-features/2014/07/140711-mekong-river-laos-thailand-dams-environment/</u>

Süleyman Nazif Sokak No: 12-B Çankaya -Ankara/TURKEY Tel: +90 (312) 430 26 09 Fax: +90 (312) 430 39 48 orsam@orsam.org.tr



## \* Kalabagh dam declared lifeline for future

## LAHORE:

The Lahore Chamber of Commerce and Industry is running a campaign to pave way for the construction of Kalabagh Dam, which they say, is a lifeline for the country's future. The chamber is holding seminars and discussions with experts to clear any misunderstandings impeding its materialisation.

"Poverty, hunger and darkness would be our fate if we don't build dams to store water, which is depleting fast. Nation will not forgive people who are opposing Kalabagh Dam for their own interests," said former LCCI vice-president Abdul Basit. "Only because of government's silence over KBD, the country is suffering a loss of Rs132 billion annually. This amount could be saved by initiating construction of the dam."

The dam is not only beneficial to Punjab but would also contribute to erasing poverty from Khyber-Pakhtunkhawa. It would irrigate 800000 acres of cultivable land that is located 100-150 feet above River Indus level in the province. Experts say this land could only be brought under cultivation if the river level is raised and that could only be possible with the construction of the dam. The only other alternative is to pump the water which is very costly. Pumping water for potential cultivable land would cost farmers Rs5,000 per acre annually, while canal water after the construction of the dam would cost only Rs400 a year.

Critics argue that if the dam is built, it would turn Sindh into a desert, but the experts are of the opinion that the province would get additional 4.75 million acre feet of water. Punjab would receive additional 2.04 MAF, Balochistan 1.56 MAF and K-P 2.01 MAF.



"A general consensus could not be reached as the dam issue has been much politicised. The civil society would have to play a crucial role in creating a larger consensus as new large water reservoirs would benefit every Pakistani," said Basit.

He said that another significant aspect connected with the construction is the surety of sufficient amount of electricity at a much cheaper price. "The capacity of the dam is equal to the capacity of 750 medium dams. The country's dependence on power generated through thermal sources is costing us a lot and we face formidable challenges in both national and international markets. Kalabagh dam, if built, would generate 12 billion units of electricity at Rs1.54 per unit. In its absence, the shortfall is covered through electricity production at a price of Rs15 per unit. This means that the country is bearing additional burden of Rs180 billion or Rs1,000 per capita per year, he added.

"Kalabagh dam declared lifeline for future", 13/07/2014, online at: <u>http://tribune.com.pk/story/734871/kalabagh-dam-declared-lifeline-for-future/</u>

## BACK TO TOP



## **\*** Water must unite, not divide us

In May, Vietnam became the 35th and decisive signatory of the 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses. As a result, 90 days later, on Aug 17,...

Please credit and share this article with others using this

,

policies at http://goo.gl/9HgTd and http://goo.gl/ou6Ip. © Post Publishing PCL. All rights reserved.

"Water must unite, not divide us", 10/07/2014, online at: <u>http://www.bangkokpost.com/opinion/419793/water-must-unite-not-divide-us</u>

## BACK TO TOP



## **Without new dams, starvation -& darkness will be our fate**

LAHORE - Hunger, starvation, famine and darkness would be our fate if we don't build dams to store water that is depleting fast. Nation will not forgive them who are opposing Kalabagh Dam for their own interests.

This was stated by the Lahore Chamber of Commerce and Industry Standing Committee on Kalabagh Dam Chairman Abdul Basit in a statement issued here Saturday. He said that that the dam is inevitable for survival of Pakistan as if the government fails to take any practical steps, poverty and hunger will be the endless fate that may lead the country to irrecoverable disaster.

He said that all those who were opposing the Kalabagh Dam were enemies of this country as they were playing with the country's future. He said that the only because of government silence over Kalabagh dam, country is suffering a loss of Rs 132 billion annually.

This amount could be saved by initiating construction of Kalabagh Dam. Abdul Basit said that there is no threat to Nowshehra city as it is 150 feet above the water level. Abdul Basit said that Kalabagh Dam, was not only beneficial to Punjab alone but it would be more helpful in erasing poverty from Khyber Pakhtun Khawa as would irrigate 800000 acres of cultivable land that is located 100-150 feet above the Indus river level in the province. He said this land could only be brought under cultivation if the river level is raised that is only possible if Kalabagh Dam is built.

He said the other alternative is to pump the water which is very costly. He creditable studies have indicated that pumping water for potential cultivable land would cost farmers Rs 5000 per acre per year while canal water after construction of Kalabagh Dam would cost only Rs400 per acre per year. He said that the politicians opposing the construction of the dam are in fact enemies of the people of province.



#### WATER RESEARCH PROGRAMME -Weekly Bulletin-

He said historical data indicates that during past 75 years average 146 million acres of water is available per year in river Indus. He said the Kalabagh Dam issue has been so much politicized that a consensus would not be possible. The political leadership he added is manipulating the issue for their advantage. He said civil society would have to play a crucial role in creating a larger consensus as new large water reservoirs would benefit every Pakistani.

"Without new dams, starvation -& darkness will be our fate", 13/07/2014, online at: http://www.nation.com.pk/business/13-Jul-2014/without-new-dams-starvation-darkness-will-be-our-fate

## BACK TO TOP