



# 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**

**04 August – 10 August 2014**

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## ❖ Islamic State Captures Iraq's Biggest Dam and Controls Water and Electricity For Key Cities

Militants from the ultra-violent Islamic State group have seized Iraq's largest dam, putting them in control of the water and electricity supply for Iraq's second city of Mosul.

The jihadist group (formerly known as Isis) seized the dam, which lies on the Tigris river, on Thursday.

"Mosul dam has been in insurgent hands since last night," a spokesman for the Kurdish peshmerga forces said on Friday.

The capture was confirmed by the US State Department and the head of Iraq's provincial council of Nineveh, Agence France Press reported.

The dam provides electricity to Mosul's 1.7 million inhabitants and its capture marks a catastrophe for the Kurdish forces that had fought for control of the facility.

Controlling the dam means the jihadists can tamper with the water and energy supply for Mosul city, which they captured from central government forces in June.

The group has previously manipulated water to attack its enemies in the western Iraqi province of Anbar.

"Isis already uses water as a weapon. It has previously stopped the water flow and dried the river course from Fallujah and downstream," an Iraqi energy expert told IBTimes UK.

### **US Intervention**

US President Barack Obama has paved the way for US airstrikes, warning that he would support the use of force to halt the Islamic State's advance across northern Iraq.

"Today America is coming to help," Obama said in a televised speech on Thursday.

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Obama said the US would intervene if the Islamic State threatened US interests or targeted religious minorities, but ruled out deploying troops to the country.

“Islamic State Captures Iraq's Biggest Dam and Controls Water and Electricity For Key Cities”, 08/08/2014, online at: <http://www.ibtimes.co.uk/islamic-state-captures-iraqs-biggest-dam-controls-water-electricity-key-cities-1460359>

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## ❖ Middle East Water Wars: Why Islamic State Wants Iraq's Dams

When ultra-violent militants sliced through the outskirts of Iraq's northern capital of Mosul in June, central government soldiers quickly melted away into the southern desert like a mirage.

For the grateful incoming fighters, the only reminder of their presence was an abundance of hastily discarded military equipment.

Videos of triumphant militants testing out their newly acquired Humvees were quickly uploaded to social media.

Days later, these clips were supplemented by gruesome photographs of alleged mass executions, a grisly fate for the security forces that did not flee, shared to spread fear among would-be opponents.

The Islamic State (formerly known as Isis) had captured the Western world's attention through its sheer brutality and its austere interpretation of Islamic law. Yet, the group's ambitions for the region's energy infrastructure present a far more troubling prospect.

### **The Battle for Iraq's Water Supply**

Following the Islamic State's capture of the Kurdish majority city of Sinjar in early August, a familiar scenario repeated itself. The raising of the black flag, gruesome images of dead enemy fighters and religious proclamations ordering conversion were circulated online.

Reports also emerged that the Islamic State had launched attacks on Iraq's two largest dams.

When the Americans invaded in 2003, securing the Haditha Dam, located on the Euphrates river, was one of their top priorities.

The dam is the second largest in Iraq, and contributes around a third of the country's electricity supply. Moreover, energy experts agree that releasing water from the dam could potentially flood wide regions of the country, destroying all in its path.

"Isis already uses water as a weapon. It has previously stopped the water flow and dried the river course from Fallujah and downstream," an expert on Iraqi energy told **IBTimes UK**.

"All the cities to the south of Haditha and on the course of the Euphrates," could potentially be flooded, if Isis were to release water from the dam in a worst case scenario. "The wave might reach regions of Baghdad, as Iraq, especially in southern parts, is a very plain country", the expert said.

The group has also launched an assault on the country's biggest dam, located outside Mosul on Iraq's second major river, the Tigris.

The dam provides electricity to Mosul's 1.7 million residents and its capture would amount to a major loss for Kurdish forces that have countered the Islamic State advance.

"Definitely the dam is very important and Isis will not do anything to harm it based on understanding this. Isis will use as a pressuring card as by controlling Haditha dam and Mosul dam Isis will have control over 70% of electrical power of the country. So it is not only water but it is also electrical power," said the London-based expert.

### **The Islamic State**

The attempt to seize the dam is indicative of the group's careful strategic planning that has fuelled their rapid unchecked success.

Formed during the insurgency that was born of the US-led invasion in 2003, the Islamic State is led by the charismatic Abu-Bakr al-Baghdadi.

With rebel-dominated eastern Syria effectively lawless by 2012, Baghdadi spotted an opportunity to seize territory and increase the Islamic State of Iraq's power base. Baghdadi's men crossed the border to fight alongside the al Qaeda affiliated Jabhat al Nusra in late 2012.

The coalition was an effective force but Baghdadi's forces were eventually expelled by the Qaeda leadership after Baghdadi attempted to merge the groups under the banner of Isis.

Moreover, the Qaeda leadership was uncomfortable being associated with Baghdadi's extreme, indiscriminate use of violence and his ultraconservative interpretation of Islam.

After publicly divorcing, the two groups fought increasingly brutal battles against other rebels and each other in Syria.

## Energy Wars

Baghdadi's forces fared well in Syria, increasing the territory under its control and seizing a range of energy infrastructure, including waterways and oil production facilities.

By June 2014, the Islamic State controlled all the main oilfields in eastern Syria, as well as the major gas fields.

According to a Carnegie Endowment report, Syria's oil producing regions were generating up to \$50m in monthly revenue for the group.

The militants also exploited water resources to exert pressure on communities. Syria's Euphrates Dam, controlled by the Islamic State, is the home of the country's largest hydroelectric plant.

Overuse has drained the nearby Lake Assad to record-low levels. The lake, which supplies drinking water to around 5 million people, is dangerously close to drying up. Controlling the facility gives the militants clout with the Syrian government and an alarming level of control over the livelihoods of millions.

With the opportunity to wield that kind of power in Iraq at stake, the battle for the country's biggest dam is likely to rage on.

“Middle East Water Wars: Why Islamic State Wants Iraq's Dams”, 05/08/2014, online at:  
<http://www.ibtimes.co.uk/middle-east-water-wars-why-islamic-state-wants-iraqs-dams-1459895>

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## ❖ Iraq jihadists control Mosul dam

Arbil (Iraq) (AFP) - Jihadists have seized Iraq's largest dam north of their hub of Mosul, giving them control over the supply of water and electricity for a vast area, officials said Friday.

"Mosul dam has been in insurgent hands since last night," said Holgard Hekmat, spokesman for the Kurdish peshmerga force that previously guarded the key infrastructure.

The head of the provincial council of Nineveh, of which Mosul is the capital, confirmed the Islamic State group had captured the dam on Thursday.

"Fierce fighting took place which eventually saw Daash (Islamic State) take control of the dam," Bashar Kiki told AFP.

The dam on the Tigris river, on the southern shores of Mosul lake about 50 kilometres (30 miles) north of the city, provides electricity to much of the region and is crucial to irrigation in vast farming areas in Nineveh province.

A 2007 letter to Prime Minister Nuri al-Maliki sent by then US ambassador Ryan Crocker and the former commander of US forces in Iraq, David Petraeus, warned of the consequences of a disaster at the dam, which was assessed to have serious structural weaknesses.

"A catastrophic failure of Mosul dam would result in flooding along the Tigris river all the way to Baghdad," the letter read.

"Assuming a worst case scenario, an instantaneous failure of Mosul dam filled to its maximum operating level could result in a flood wave 20 metres deep at the city of Mosul," it said.

The Islamic State has already resorted to the weaponisation of dams, as was the case earlier this year when it flooded large areas around the city of Fallujah, west of Baghdad.

However Mosul is the main stronghold of the Iraqi part of the Islamic State's self-proclaimed "caliphate" and the dam would be an important part of its own economy and state-building efforts.

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"Naturally there are concerns militants could flood down-river areas... but in Mosul it would be a bit of an own goal," said John Drake, an Iraq specialist with the AKE Group security company.

"Iraq jihadists control Mosul dam",08/08/2014, online at: <http://news.yahoo.com/iraq-jihadists-control-mosul-dam-110406155.html>

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❖ **This is what could happen if the Islamic State destroys the Mosul Dam**

If , as some reports suggest, Islamic State forces have seized Mosul Dam, they might have stumbled on a weapon exponentially more powerful than any U.S.-made armored vehicle or Soviet-era anti-aircraft gun.

The Mosul Dam is Iraq’s largest dam and with its shoddy construction could, if destabilized, affect the lives of Iraqis as far south as Baghdad.

Located on Mosul Lake the facility provides electricity and irrigation to surrounding areas.

“If the dam fails, scientists say, Mosul could be completely flooded within hours and a 15-foot wall of water could crash into Baghdad,” [Keith Johnson wrote in a Foreign Policy article from earlier this summer.](#)

A 2011 [article from the International Water Power and Dam Construction magazine](#) indicated that if the Mosul Dam was destroyed the ensuing destruction could result in half a million deaths.

In July the Islamic State took the Nuaimiyah Dam in Western Iraq, and now with the seizure of the Mosul Dam, its control of critical infrastructure presents a huge challenge for the the Iraqi government.

In a 2007 letter to Iraqi Prime minister Nouri al-Maliki from then commanding General of the U.S. Army David Petraeus and U.S. ambassador to Iraq Ryan Crocker, the two Americans warned that the structure, built in the 1980s, had been erected on an unstable foundation of soil and was “at great risk of failure.”

Johnson described Iraq’s dams as the country’s “soft underbelly in the fight against ISIS.”

Iraqi forces remain in control of Haditha Dam. That structure, a sprawling hydro-electric facility located to the south west of Baghdad in Al-Anbar province, was a key focus of coalition efforts

during the Iraq war. For most of the U.S. occupation of the country a large contingent of Marines were physically garrisoned within the structure.

“Using [the] Haditha [dam], ISIS could flood farmland and disrupt drinking water supplies like it did with a smaller dam near Fallujah this spring,” Johnson wrote, referring to a [flood](#) that displaced more than 50,000 people between Fallujah and Abu Ghraib.

“This is what could happen if the Islamic State destroys the Mosul Dam”, 08/08/2014, online at:  
<http://www.washingtonpost.com/news/checkpoint/wp/2014/08/08/this-is-what-could-happen-if-the-islamic-state-destroys-the-mosul-dam/>

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## ❖ Islam State (ISIS) poised to capture two main Iraqi dams

The Islamic State is launching attacks to capture the Haditha dam in western Iraq and the Mosul Dam in the north near the city of Mosul.

[The capture of the dams](#) would give the radical Islamist group control over vital water resources and also hydro power generation. Over last weekend the group launched a three-pronged attack to capture the Haditha dam, which has six power generators and contains Iraq's second-largest reservoir. The group already controls a dam near Fallujah. Control of the dam would give the group valuable resources to supply and develop the territories they have seized as well as another source of revenue should they sell the power or water. They could also use the water as a weapon to disrupt life downstream by producing floods or drought.

The group attacked on Friday August 2. The militants took over the army headquarters in Haditha the last barrier before the dam. However, local tribes who oppose the Islamic State sent fighters to reinforce the 2,000 Iraqi soldiers guarding the town. The commander of Anbar Operation command Rasheed Fleih told AP that at least 35 militants and 10 soldiers were killed in the clashes. However, military sources say that the militants are continuing to attack the town every day and they are only 10 kilometers from the dam.

There are conflicting reports of the situation at the Mosul Dam. [One report](#) claims that militants have actually seized the dam: "The terrorist gangs of the Islamic State have taken control of Mosul Dam after the withdrawal of Kurdish forces without a fight," said Iraqi state television. The city of Mosul fell to the Islamic State back on June 10 almost two months ago.

[Major General Jabar Yawer](#) the spokesperson for the Kurdistan Regional Guard Forces said that there were fierce battles going on between the Kurdish peshmerga forces and Islamic State militants:

"The peshmerga are "under a great deal of pressure now" as they defend a 150-kilometer (80-mile) frontline against the Islamic State group along the edges of the Kurdish autonomous zone in the north. God forbid, if something happens that results in the destruction of the dam, it will be very, very dangerous,"

If the Islamic State [does gain control](#) of the Mosul Dam it could cause a devastating flood downstream right into downtown Baghdad:

“Everything under it will be under five to 10 meters (yards) of water... including Baghdad itself,” said Ali Khedery, head of the Dubai-based consultancy Dragoman Partners and a longtime adviser to the U.S. military, government and companies in Iraq. “It would be catastrophic.”

However, the Islamic State is unlikely to use this tactic as long as they control Mosul since the flood would be much worse in that city. However, it might be used in the event that it was retaken by Iraqi forces while Islamists still held the dam.

Paul Sullivan of the National Defense University in Washington said that disruption of the Mosul Dam "would destabilize the electricity system of northern Iraq" as the station is an integral part of Iraq's electrical grid.

[A recent report](#) on the Mosul dam situation notes that the Mosul Dam is in need of constant repair:

"The U.S. Army Corps of Engineers has been overseeing repairs to Mosul Dam, including an emergency grouting program. [Richard Coffman](#), from the University of Arkansas said that the Islamic State (ISIS) needed to continue the grouting operation if it takes over the dam: "Simply put, if ISIS does not continue grouting operations, the dam may fail. If failure occurs, Mosul will be inundated with approximately 30 meters of water and Baghdad with 5 meters of water."

[One source](#) claims that although the Islamic State initially took control of the Mosul Dam they were later driven out by Kurdish forces:

"Iraqi Kurdish forces defending 750-MW Mosul Dam reportedly foiled an attempt by troops of Islamic State to seize control of Mosul Dam, the largest dam and hydroelectric project in Iraq...However, later August 4, CNN said Mosul Dam's director, Abdul Kaliq al-Dabbagh, said Islamic State forces were pushed back after they gained access to a dam employee housing compound. Al-Dabbagh was quoted saying Peshmerga Kurds held their positions until reinforcements arrived early August 4."

[More recent reports](#) again claim that the Islamic State has gained control of the dam.

“Islam State (ISIS) poised to capture two main Iraqi dams”, 07/08/2014, online at: <http://www.allvoices.com/contributed-news/17620779-islam-state-isis-poised-to-capture-two-main-iraqi-dams>

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## ❖ Islamic State levels threat at Turkey

Radical terrorist group active in Syria and Iraq says Turkey must reopen Euphrates dam — or be conquered

The Islamist State, the al-Qaeda offshoot that has been terrorizing and executing its way through Syria and Iraq in recent months, may have its sights set on Turkey next, a rare interview with one of its members published Saturday indicated.

The hardline Sunni group, which some American officials have dubbed “a terrorist army,” recently overpowered lightly armed Kurdish units in a blitzkrieg that has threatened the Kurdish region and the American personnel stationed there, causing US military forces to respond with airstrikes — and drawing Washington back into the Iraqi fray.

But now, the Islamic State may have a new target — Turkey.

In an interview with an Islamic State operative in Raqqa, Syria, where the group’s stronghold is located, VICE reporter Medyan Dairieh — who was said by VICE to have gained “unprecedented access to the group in Iraq and Syria,” and who the Turkish Hurriyet daily said was the first journalist to expose the inner workings of IS — was told that the “apostate” Turkish state would have to capitulate to IS’s demands — or be conquered.

These demands are, chiefly, the reopening of a Turkish dam on the Euphrates River, preventing drinking water from reaching neighboring Syria.

The Ataturk Dam, located close to the Turkish-Syrian border, was closed earlier this year.

“I pray to God that the apostate [Turkish] government reconsiders its decisions [to close the dam]. Because of they don’t reconsider it now, we’ll consider it for them by liberating Istanbul,” warned the IS operative in the interview, which was conducted on the banks of the Euphrates, with the operatives’ children splashing about in its waters in the background.

Dairieh, who was embedded with IS for three weeks, then asked the operative if his words were meant as a threat.

“Yes, this is a clear threat, and God willing, if they don’t open it, we’ll open it from Istanbul,” he warned.

Dairieh’s report, which was aired in two parts starting August 7, also showed a Belgian IS member indoctrinating children to kill “all infidels” — including in their native Belgium and Europe — and revive the Islamic Caliphate.

The roots of IS hark back to the uprising against Syrian President Bashar Assad and the attempt by Western-backed rebel groups to overthrow his Ba’athist regime. As the months passed, the fighting morphed into a brutal civil war, causing the country to descend into chaos and creating a vacuum into which Islamist terror groups — as well as more extreme breakaways such as IS — could step.

“Islamic State levels threat at Turkey”, 09/08/2014, online at: <http://www.timesofisrael.com/islamic-state-levels-threat-at-turkey/>

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❖ **A black flag is flying over Iraq’s largest dam, signalling that ISIS has seized control of an enormous resource**

BAGHDAD — Sunni militants from the Islamic State group on Thursday seized Iraq’s largest dam, placing them in control of enormous power and water resources and access to the river that runs through the heart of Baghdad.

After a week of attempts, the armed gunmen successfully stormed the Mosul Dam and forced Kurdish forces to withdraw from the area, residents living near the dam told The Associated Press. They spoke anonymously for safety concerns.

The Islamic State group posted a statement online Thursday, confirming that they had taken control of the dam and vowed to continue “the march in all directions,” adding that it not give up the “great Caliphate project.” The statement could not be verified but it was posted on a site frequently used by the group.

“The Mosul dam is now under Islamic State control,” Hisham al-Brefkani, a member of the Nineveh provincial council, said in a phone interview. “We call on the United Nations, the Security Council, the U.S. and the European Union to help.”

A dam employee, who was on site and asked that his name be withheld for safety reasons, confirmed that Islamic militants had overrun the installation.

The Islamic State’s black flag was hoisted above the dam Thursday, two witnesses told Reuters.

The Mosul Dam — or Saddam Dam as it was once known — is located north of Iraq’s second-largest city Mosul, which fell to the militants on June 10. Fighting intensified in the region Sunday after the nearby towns of Zumar and Sinjar fell to the militants.

Seizing of the dams and the large reservoirs gives the militants control over water and electricity that they could use to help build support in the territory they now rule by providing the scarce resources to residents. Or they could sell the resources as a lucrative source of revenue.

The Kurdish peshmerga units had initially managed to stall the militant advances, but their defence waned in recent weeks.

On Monday, Prime Minister Nouri al-Maliki ordered the Iraqi air force to provide aerial support to the Kurds, in a rare show of co-operation between Baghdad and the Kurdish regional government that underscored the serious nature of this crisis.

Iraq's second largest dam, Haditha Dam in the western Anbar province, has also been at risk of takeover but remains in the hands of the Iraqi military.

“A black flag is flying over Iraq's largest dam, signalling that ISIS has seized control of an enormous resource”,07/08/2014, online at: <http://news.nationalpost.com/2014/08/07/a-black-flag-is-flying-over-iraqs-largest-dam-signalling-that-isis-has-seized-control-of-an-enormous-resource/>

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## ❖ Sunni Militants Seize Iraq's Largest Dam

BAGHDAD—Sunni militants from the Islamic State group on Thursday seized Iraq's largest dam, placing them in control of enormous power and water resources and access to the river that runs through the heart of Baghdad.

After a week of attempts, the radical Islamist gunmen successfully stormed the Mosul Dam and forced Kurdish forces to withdraw from the area, residents living near the dam told The Associated Press. They spoke anonymously for safety concerns.

The group's advances came as the capital has been shaken by a string of car bombs that has claimed more than 80 lives in the last two days.

The Islamic State group posted a statement online Thursday, confirming that they had taken control of the dam and vowed to continue "the march in all directions," adding that it will not "give up the great Caliphate project." The group added that it has seized a total of 17 cities, towns and targets — including the dam — over the past five days. The statement could not be verified but it was posted on a site frequently used by the group.

Halgurd Hekmat, a spokesman for the Peshmerga, told The Associated Press that clashes around the dam are ongoing and he does not know who is in control at this point in time.

The al-Qaida-breakaway group has established its idea of an Islamic state in the territory it controls in Iraq and Syria, imposing its harsh interpretation of Islamic law. Iraqi government forces, Kurds and allied Sunni tribal militiamen have been struggling to dislodge the Islamic State militants and its Sunni allies with little apparent success.

The Mosul Dam — or Saddam Dam as it was once known — is located north of Iraq's second-largest city Mosul, which fell to the militants on June 10. Fighting intensified in the region Sunday after the nearby towns of Zumar and Sinjar fell to the militants. It's not the only dam they are targeting.

Iraq's second largest dam, the Haditha Dam in the western Anbar province, has also been at risk of takeover but remains in the hands of the Iraqi military.

The Kurdish fighters, known as the peshmerga, had initially managed to stall the militant advances, but their defense has waned in recent weeks.

The seizing of dams and reservoirs gives the militants control over water and electricity that they could use to help build support in the territory they now rule by providing the scarce resources to residents. Or they could sell the resources as a lucrative source of revenue.

There are also fears the militants could release the waters of the dam and devastate the country all the way down to the capital Baghdad, though maintaining the dam's power and water supplies will be key to their attempts to build a state.

Late Wednesday, militants overran a cluster of predominantly Christian villages alongside the country's semi-autonomous Kurdish region, sending tens of thousands of civilians and Kurdish fighters fleeing from the area, several priests in northern Iraq said Thursday. The capture of Qaraqoush, Iraq's biggest Christian village, and at least four other nearby hamlets, brings the Islamic State to the very edge of the Iraqi Kurdish territory and its regional capital, Irbil.

The U.S. officials said the administration is weighing an urgent response to help the thousands of trapped religious minorities fleeing their homes, possibly with humanitarian aid.

On Monday, Prime Minister Nouri al-Maliki ordered the Iraqi air force to provide aerial support to the Kurds, in a rare show of cooperation between Baghdad and the Kurdish regional government that underscored the serious nature of this crisis.

The French government on Thursday called for an emergency meeting by the United Nations Security Council to address the advances of the Islamic State militants and "the intolerable abuses committed," and asked that the international community mobilizes itself against the threat.

Even as Sunni militants have been taking control of territory in the north and west of the country, Baghdad has been increasingly targeted by car bombs, with a string of explosions killing at least 83 people in the last two days.

Iraqi officials said in two separate incidents on Thursday, drivers rammed cars packed with explosives into police checkpoints in the northern, predominantly Shiite district of Kazimiyah killing a total of 32 people, most of them civilians, and wounding dozens.

Medical officials confirmed the toll. All officials spoke on condition of anonymity as they were not authorized to release information.

A roadside bomb also went off west of Baghdad in the suburb of Abu Ghraib, killing two soldiers.

“Sunni Militants Seize Iraq’s Largest Dam”,07/08/2014, online at: <http://www.theepochtimes.com/n3/852673-sunni-militants-seize-iraqs-largest-dam/?photo=2>

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### ❖ **U.S. Weighs Aid Drops, Airstrikes on Islamist Militants in Iraq**

The U.S. will soon begin airdrops of aid for thousands of refugees driven from their homes by Islamist militants in [Iraq](#), according to a defense official.

Planes dropping food and other humanitarian supplies to the refugees would be accompanied by combat aircraft, raising the possibility of airstrikes, a second official said. If the insurgents target the planes, the U.S. and Iraq would consider a larger air campaign against them. The officials asked not to be identified because the discussions are private.

A Pentagon spokesman denied reports on Kurdish television and cited by the [New York Times](#) that U.S. forces have already bombed at least two targets in northern Iraq.

“Press reports that U.S. has conducted airstrikes in Iraq completely false. No such action taken,” said Rear Admiral John Kirby, a Pentagon spokesman, on Twitter.

The potential escalation in U.S. involvement comes as the Islamic State, the group that seized swaths of northern Iraq in June, extended its advance today by seizing the Mosul dam, the country’s largest. They have also driven tens of thousands of people from their homes during an offensive in the past week, many from minority Yezidi and Christian communities.

### **Mosul Dam**

“The Mosul dam is now under Islamic State control,” Hisham al-Brefkani, a member of the Nineveh provincial council, said in a phone interview. It holds back water that, if unleashed, could flood Mosul, northern Iraq’s biggest city, and wreak damage as far afield as Baghdad.

A dam employee, who was on site and asked that his name be withheld for safety reasons, confirmed that Islamic militants had overrun the installation.

**Oil prices** rose on the news, with Brent for September settlement climbing 76 cents, or 0.7 percent, to \$105.35 a barrel on the London-based ICE Futures Europe exchange at 12:47 p.m. in New York.

Control of the dam gives the Islamic State “a hand around the throat” of the country, Michael Stephen, deputy director of the **Royal United Services Institute** in Qatar, said by phone. The group will have “leverage over Baghdad, over Mosul, a lot of big civilian areas,” as well as the ability to “shut down army movement, shut down cities,” he said. “I don’t think they are going to blow it up because it would be destroying their own power base.”

### **Seizing Territory**

Islamic State, which was previously known as Islamic State in Iraq and the Levant, has seized territory in Iraq and **Syria** and declared its own self-styled caliphate, highlighting the central government’s inability to ensure security under Prime Minister Nouri al-Maliki.

After its breakthrough two months ago, when it routed the Iraqi army and seized the city of Mosul, the group has returned to the offensive this week, defeating Kurdish fighters and sparking a new refugee crisis, especially among the Yezidi communities near the Syrian border.

Several predominantly Christian villages and towns, including Qaraqosh, fell into the hands of the militants, Yousif Thomas, the Chaldean archbishop of Kirkuk and Sulaimaniyah, said by phone today. Kurdish forces known as Peshmerga, who had been protecting the villages, retreated, allowing the militants to take over, Thomas said.

### **U.S. Concerned**

White House press secretary **Josh Earnest** said the U.S. is “gravely concerned” for the health and safety of religious and ethnic minorities who have been targeted by the militants, saying it is “nearing a humanitarian catastrophe.”

He declined to say whether U.S. airpower will be used to assist. “I’m not in a position to shed light on the president’s thinking at this moment” he said, adding there are “no American military solutions” to the situation in Iraq.

The U.S. “is supporting the ongoing efforts of Iraqi officials and Kurdish officials” to assist those under siege, Earnest said. “If there are specific needs in Iraq, we will look to provide it.”

The Kurdistan regional government asked for international backing to step up its fight against the militants. “We need air support, weapons, and ammunition,” the Kurdish administration’s Foreign Minister Falah Mustafa Bakir said in an interview.

### **Fleeing Region**

After the militants’ gains at Sinjar, near the Syrian border, about 140,000 people fled the region, according to United Nations children’s fund UNICEF. While most escaped to Kurdish-controlled areas, about 50,000 people, half of them children, were stranded in the mountains, UNICEF spokeswoman Juliette Touma said by phone from Iraq.

“I received a text message from one of my relatives there before his phone’s battery died, saying there is a mass grave for the children,” Housam Salim, the head of the Solidarity and Brotherhood Yezidi Organization, said in a phone interview today from an area of Mosul controlled by Kurdish forces.

The Islamic State has used beheadings to intimidate people in its advance across Iraq and Syria and has terrorized religious minorities. It considers Yezidis, a community whose faith includes features of the ancient Persian religion of Zoroastrianism, as apostates under its fundamentalist interpretation of Islam.

## ‘Have Mercy’

Iraqi Christians have also been driven into exile. Firas Salem, 35, speaking by phone from a church in Erbil, where he has taken refuge, said he left the Christian town of Qaraqosh with his family yesterday following clashes between Peshmerga forces and militants who wanted to enter the town.

“At the very, very least, they would have let us leave with only the clothes on our backs and would have taken our money, jewelry and car,” Salem said of the militants. “That is, if they wanted to have mercy on us.”

Turkish F-16 fighter jets crossed into Iraqi airspace seeking intelligence on the militants near Erbil, Sabah newspaper reported today, without saying where it got the information.

**Etiihad Airways** halted flights to Erbil in Northern Iraq until further notice in response to the deteriorating security situation. Flights to Basra and Baghdad are operating as normal, the Abu Dhabi-based carrier said in statement.

## Street Marches

Dubai-based Emirates announced the termination of Erbil flights two days ago, though Deutsche Lufthansa AG and **Qatar Airways** are still planning to operate services there.

In Mosul, Islamic State militants have been marching in the streets and announcing from car-mounted loudspeakers that they’ve “regained all the disputed areas in Nineveh,” the province that includes the city and the dam, Sheikh Ahmed al-Shimmary, a resident, said by phone.

At the dam, the militants have ordered engineers and other staff to continue their work as normal, according to the employee on site. The dam undergoes regular maintenance and it’s not clear if that work will continue, the employee said.

Islamic State may “continue to use electricity and water as weapons,” [Paul Sullivan](#), a Middle East specialist at [Georgetown University](#) in [Washington](#), said by e-mail. “The most likely uses will be to redirect both to their supporters and cut off both to their opposition.”

In a letter to Maliki in 2007, then-U.S. Ambassador in Iraq [Ryan Crocker](#) and General David Petraeus, the army commander there, warned that structural flaws at the dam posed a threat to large areas of the country. “A catastrophic failure of Mosul Dam would result in flooding along the Tigris River all the way to Baghdad,” they wrote. Mosul would be in the severest danger, facing “a flood wave 20 meters deep.”

If the militants “have real pros on water and electricity systems with them, we may see some very curious events,” Sullivan said. “What might be an even more serious problem is if they have amateurs with them and they make serious errors in judgment. Either way, Iraq is under a greater threat today than yesterday.”

“US Weighs Aid Drops, Airstrikes on Islamist Militants in Iraq”, 08/08/2014, online at: <http://www.bloomberg.com/news/2014-08-07/iraqi-islamists-ovenun-christian-towns-in-push-for-major-dam.html>

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[WWW.ORSAM.ORG.TR](http://WWW.ORSAM.ORG.TR)

### ❖ Iraq's Largest Dam Could Collapse as Extremists Advance

Iraq's dam at Mosul, the country's largest, is in danger of collapsing as Sunni ISIS extremists sweep across the northern part of the country, [Business Insider reported](#).

Kurdish fighters in the north — who are Sunni but not Arabs — are waging ferocious battles against the Islamic State, also known as ISIS, in the area of the threatened dam. The Shiite government in Baghdad has agreed to provide air support for the Kurds though analysts are doubtful the sorties will make any difference, [The New York Times](#) reported.

The dam, built by Saddam Hussein around 1980, rests on a foundation of soluble gypsum that must be bolstered by permanent grouting. Failure to maintain the grouting regime will result in the dissolving of the bedrock under the dam.

Richard Coffman, a civil engineer and expert on conditions at the Mosul Dam, said, "It's been under continuous grouting since the 1980s. The dam is grouted six times a week to prevent it from failing," Business Insider reported.

It would be disastrous if the grouting was not maintained. "It would be a pretty rapid dissolution of the dam given the constant grouting. I can't give an exact time, but the frequency of the grouting makes me believe that the dissolution would occur quickly," Coffman said.

If the dam collapses, Mosul, about 250 miles northwest of Baghdad, would be flooded within hours and Baghdad would be under more than 10 feet of water in a matter of days, Business Insider reported.

ISIS could use the dam as part of its military onslaught. When it seized Fallujah Dam in January, the extremists triggered flooding that led to shortages of drinking water for hundreds of thousands of Iraqis, according to Business Insider.

Even if ISIS wanted to leave the dam intact, it is not clear that it has the knowhow to do so.

"Grouting is typically a learned skill done by experts," Coffman said. "I can't speak to the skill of the insurgents, but I'd imagine that they might have some trouble with this," according to Business Insider.

The U.S. Army Corps of Engineers found in 2007 that the dam was brittle and warned that if it collapsed 500,000 people could lose their lives, [The Washington Post](#) reported at the time.

"Iraq's Largest Dam Could Collapse as Extremists Advance", 06/08/2014, online at:  
<http://www.newsmax.com/Newsfront/Iraq-dam-ISIS-Kurds/2014/08/06/id/587156/>

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## ❖ **ISIS claims gains, takes control of Iraq's largest hydroelectric dam**

(CNN) -- Fighters with the militant group the Islamic State in Iraq and Syria reached the triangle border between Iraq, Syria and Turkey, it said in a message posted on Twitter on Sunday.

ISIS took control of Iraq's largest hydroelectric dam on Iraq's Tigris River, which provides power to the city of Mosul about 50 kilometers (31 miles) to the south, the commander of the Peshmerga Kurdish fighters who had been defending the facility said Sunday.

The dam workers remained inside the facility, which fell after a 24-hour battle, Lt. Col. Herash said.

### **A "horrendous prospect"**

ISIS -- known for killing dozens of people at a time, while carrying out public executions, crucifixions and other acts -- has taken over several cities as it seeks to create an Islamic caliphate that encompasses parts of Iraq and Syria.

Daniel Pipes, the president of the Middle East Forum, said seizing dams is a tactic the group uses to gain control of a town and its people.

No dam, however, is as formidable or as important to Iraq as the one in Mosul.

"If you control the Mosul Dam, you can threaten just about everybody," Pipes told CNN's Jonathan Mann.

Pipes said the militant group now has the potential to create a flood so massive and catastrophic that it would not only cause death, destruction and chaos locally in the city of Mosul, but more than 450 kilometers (280 miles) away in Baghdad as well.

"It's a horrendous prospect," he said.

Peshmerga Kurdish fighters also pulled out of the towns of Zumar and Wana after being surrounded by ISIS fighters and isolated from any support, Kurdistan Democratic Party regional official Ismat Rajab told CNN on Sunday.

### [FAA restricts flights over Iraq as conflict with ISIS rages](#)

The United Nations in Iraq warned that 200,000 civilians were trapped in a dire circumstances after ISIS and associated armed groups "seized control of nearly all of Sinjar and Tal Afar districts in Ninewa Province, including the oil fields of Ain Zala and Batma, bordering the Kurdistan Region of Iraq."

Most of the refugees are from the Yezidi sect and have fled to Jabal Sinjar, the United Nations said.

"The humanitarian situation of these civilians is reported as dire, and they are in urgent need of basic items including food, water and medicine. An unknown number of civilians are also reported to have moved towards Dahuk and Zako in the Kurdistan Region."

#### ISIS to Christians in Mosul: Convert, pay or die

ISIS took control of Sinjar, a small town inhabited by the Yezidi sect, on Saturday, according to police officials.

An ISIS Twitter posting linked to a statement referencing "the battle of opening the borderline between state of Ninawa and Dohuk provinces."

"The Islamic Caliphate legions have launched since this morning" operations towards the northwestern regions bordering state of Nineveh," the statement said. "God facilitated for the mujahedeen to break into many important areas controlled by the Kurdish gangs and secular militias."

The State Department said Sunday that it was "actively monitoring the situation" in Sinjar and Tal Afar, and said that the U.S. is supporting both Iraqi security forces and Peshmerga forces in the fight against ISIS. "The (ISIS) assault over the past 48 hours on territories along the border of the Iraqi Kurdistan Region and focusing on towns and villages populated by vulnerable minorities, demonstrates once again that this terrorist organization is a dire threat to all Iraqis, the entire region, and the international community," spokeswoman Jen Psaki said in a statement.

#### U.S. agrees to send 5,000 more Hellfire missiles to Iraq

"ISIS claims gains, takes control of Iraq's largest hydroelectric dam", 04/08/2014, online at:  
<http://edition.cnn.com/2014/08/03/world/meast/iraq-crisis-isis/>

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## ❖ Water Wars in Iraq and Around the World

Tens of thousands of desperate Iraqis who fled Mosul, Iraq's second largest city under assault by Islamic State of Iraq and the Levant forces, are dying or at risk of dying of dehydration atop Mount Sinjar. Water is now coming down from the sky—not as rain, but in the form of U.S. humanitarian airdrops. Fifteen thousand gallons of fresh water along with food is reaching thirsty, hungry and frightened people.

Meanwhile, back in Mosul, reports are that ISIL has taken control over Iraq's largest dam. The Mosul Dam, also known as the "Saddam Dam." paradoxically, supplies millions of gallons of water and power to that region. For ISIL, control of the dam would be a strategic weapon in their ongoing campaign to root out anyone who fails to adopt their extremist views. Control of water means control of people as ISIL could restrict electricity and hold back access to safe water. The dam presents another frightening scenario— a breach causing massive flooding and further disruption of life in Iraq.

AUTHOR Tara Sonenshine is Distinguished Fellow at George Washington University's School of Media and Public Affairs and former under secretary of state for public diplomacy and public affairs.  
Full Bio

Water as a weapon of war is not a new phenomenon but it takes on added urgency at a time in the world when clean water is in short supply. According to the United Nations, a billion people lack access to clean water. That's one out of seven people on the planet. Back in 2012, a U.S. intelligence report commissioned by the State Department warned that over the next decade many countries of importance to the United States will experience water problems from shortages to poor quality— problems that exacerbate regional tensions and risk becoming major sources of instability and conflict.

Water is behind much of the turmoil in the Middle East today. In Gaza, residents complain about lack of safe water for drinking and sanitation. In Egypt, where the Nile River is critical to everything, conflicts over access to water became a factor in the Arab Spring protests as synonymous with wealth and corruption. In Syria, citizens of Aleppo have faced intermittent water shortages since May when armed groups cut off access. Throughout Africa and Asia, water conflicts tear people apart.

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As we study the needs for conflict prevention and conflict management in the chaotic world of 2014, we must add water management to the list of issues demanding action. Natural resources are both problems and solutions depending upon who has them. Add to that issues like climate change, and the human need to export? power and control, and you have a recipe for disaster.

H2O adds fuel to the fire in Iraq, while also quenching thirst and saving lives. Let's hope we can both supply it and contain it.

“Water Wars in Iraq and Around the World”,09/08/2014, online at: <http://www.defenseone.com/ideas/2014/08/water-wars-iraq-and-around-world/91064/>

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❖ **Islamic State militants seize country's largest dam near city of Mosul, Kurdish troops flee**

BAGHDAD (AP) — Sunni militants from the Islamic State group on Thursday seized Iraq's largest dam, placing them in control of enormous power and water resources and access to the river that runs through the heart of Baghdad.

After a week of attempts, the radical Islamist gunmen successfully stormed the Mosul Dam and forced Kurdish forces to withdraw from the area, residents living near the dam told The Associated Press. They spoke anonymously for safety concerns.

The Islamic State group posted a statement online Thursday, confirming that they had taken control of the dam and vowed to continue "the march in all directions," adding that it will not "give up the great Caliphate project." The group added that it has seized a total of 17 cities, towns and targets — including the dam — over the past five days. The statement could not be verified but it was posted on a site frequently used by the group.

Halgurd Hekmat, a spokesman for the Peshmerga, told The Associated Press that clashes around the dam are ongoing and he does not know who is in control at this point in time.

The al-Qaida-breakaway group has established its idea of an Islamic state in the territory it controls in Iraq and Syria, imposing its harsh interpretation of Islamic law. Iraqi government forces, Kurds and allied Sunni tribal militiamen have been struggling to dislodge the Islamic State militants and its Sunni allies with little apparent success.

The Mosul Dam — or Saddam Dam as it was once known — is located north of Iraq's second-largest city Mosul, which fell to the militants on June 10. Fighting intensified in the region Sunday after the nearby towns of Zumar and Sinjar fell to the militants. It's not the only dam they are targeting.

Iraq's second largest dam, the Haditha Dam in the western Anbar province, has also been at risk of takeover but remains in the hands of the Iraqi military.

The Kurdish fighters, known as the peshmerga, had initially managed to stall the militant advances, but their defense has waned in recent weeks.

The seizing of dams and reservoirs gives the militants control over water and electricity that they could use to help build support in the territory they now rule by providing the scarce resources to residents. Or they could sell the resources as a lucrative source of revenue.

There are also fears the militants could release the waters of the dam and devastate the country all the way down to the capital Baghdad, though maintaining the dam's power and water supplies will be key to their attempts to build a state.

Late Wednesday, militants overran a cluster of predominantly Christian villages alongside the country's semi-autonomous Kurdish region, sending tens of thousands of civilians and Kurdish fighters fleeing from the area, several priests in northern Iraq said Thursday. The capture of Qaraqoush, Iraq's biggest Christian village, and at least four other nearby hamlets, brings the Islamic State to the very edge of the Iraqi Kurdish territory and its regional capital, Irbil.

On Monday, Prime Minister Nouri al-Maliki ordered the Iraqi air force to provide aerial support to the Kurds, in a rare show of cooperation between Baghdad and the Kurdish regional government that underscored the serious nature of this crisis.

The French government on Thursday called for an emergency meeting by the United Nations Security Council to address the advances of the Islamic State militants and "the intolerable abuses committed," and asked that the international community mobilizes itself against the threat.

Even as Sunni militants have been taking control of territory in the north and west of the country, Baghdad has been increasingly targeted by car bombs, with a string of explosions killing at least 66 people in the last two days.

Iraqi officials said a suicide car bomber rammed his explosives-laden car into a police checkpoint Thursday, killing at least 15 people. A security official said nine civilians were among the dead in Thursday's attack that took place in the predominantly Shiite northern neighborhood of Kazimiyah. He added that 26 other people were wounded.

A medical official confirmed the causality figure. Both officials spoke on condition of anonymity as they were not authorized to release information.

"Islamic State militants seize country's largest dam near city of Mosul, Kurdish troops flee", 07/08/2014, online at: <http://www.newser.com/article/b4ec5a23c30444618ea7e3217eeff8e2/islamic-state-militants-seize-countrys-largest-dam-near-city-of-mosul-kurdish-troops-flee.html>

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### ❖ Iraq crisis deepens as militants seize country's largest dam

Baghdad • Sunni militants from the Islamic State group on Thursday seized Iraq's largest dam, placing them in control of enormous power and water resources and access to the river that runs through the heart of Baghdad.

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"Iraq crisis deepens as militants seize country's largest dam", 07/08/2014, online at:  
<http://www.sltrib.com/sltrib/world/58271518-68/dam-militants-iraq-islamic.html.csp>

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[WWW.ORSAM.ORG.TR](http://WWW.ORSAM.ORG.TR)

## ❖ ISIS Rebels Target 2nd Iraq Dam

Islamic state fighters in Iraq are targeting another critical dam, as fighting continues between the militants and Kurdish security forces near Mosul Dam, considered Iraq's largest.

As of Wednesday, Baghdad said government forces are in control of Mosul Dam, preventing a catastrophic event after the ISIS threatened to blow up the dam and flood a large area of Iraq's Nineveh province, including the city of Mosul which remained in rebel hands.

ISIS fighters reportedly were able to reach a housing facility for dam workers, but Peshmerga forces composed of Iraqi Kurds forced them out before they could do further damage.

About 350 kilometers to the south, Iraqi army troops clashed with ISIS militants in the villages near the Haditha Dam, on the Euphrates River in Anbar province northwest of Baghdad.

Arab News in Saudi Arabia interviewed Hameed Hashim, member of the Anbar provincial council, who said ISIS fighters have intensified their attacks on Haditha town and the dam in the last four days.

"Haditha dam is still under government forces' control and there are military reinforcements around it," Hashim said.

Even so, Iraq has to double security around the two big dams.

In 2007, a Pentagon report warned that the Mosul Dam, if breached through an act of sabotage, or even by accident, could send a 20-meter high flood wave through the city of Mosul and surrounding areas.

Analysts warned the ISIS could use the dam, and the Haditha Dam as well, as an instrument of environmental warfare - or more specifically dam warfare - if these fell into rebel hands.

Dam warfare was used on Germany's reservoirs in World War II, when British warplanes destroyed dams on the Mohne and Eder, and flooded 50 square miles of the Ruhr Valley industrial heartland in 1943, killing 1,300 people.

In China, the Nationalist Chinese Army blew up a key dike on the Yellow River in 1938 to block Japanese invaders on their advance to the important city of Wuhan. Chiang Kai-Shek knew full well that it would cause a big flood in central China.

Official estimates then said more than 800,000 Chinese civilians drowned and millions more were forced to flee.

The Japanese suffered only minimal casualties and took Wuhan after three months.

“ISIS Rebels Target 2nd Iraq Dam”, 06/08/2014, online at: <http://www.chinatopix.com/articles/5892/20140806/isis-rebels-target-2nd-iraq-dam.htm>

❖ **Iran's dam-building era may have come to an end.**

Energy Minister Hamid Chitchian appeared to sound the death-knell for major dam-building in Iran after two-thirds of a century of such projects.

"Construction of new dams will not add to any water resources and will merely re-distribute the same resources, while some of the dams already constructed have not collected much water behind them," he said last Thursday, according to the Islamic Republic News Agency (IRNA).

IRNA failed to pin him down on exactly what he meant, but it sounded like he was announcing an end to the huge dam-building period that the Shah started in the mid-1950s.

Dams were one of the Shah's favorite expenditures that the revolution did not end and, in fact, greatly expanded. During the administration of President Ahmadi-nejad, himself a civil engineer, dam-building was moved along at a colossal pace.

According to 2010 statistics, Iran then had 588 operating dams, 137 under construction and 548 others planned.

Chitchian did not say if the planned dams would now be set aside or if some of them would still be built.

If dam construction is indeed halted, it would have a major economic impact. The end of such construction expenditures would save the regime much money. But the dam-building era saw Iran develop an entire industry devoted to dam construction. Ending that era could be devastating for many business firms, not to mention the careers of many engineers.

Iran is entering an era of water shortages that dams cannot cure, however. Chitchian said his focus now would be on desalination of sea water and moving that water to parched areas of the country. He said his ministry, which chiefly oversees water and electricity, is now investing in a project to transfer desalinated Persian Gulf and Sea of Oman water to Sistan va Baluchestan and several central

provinces to counter draughts, IRNA reported.

"Since the salt density of the Caspian Sea would have increased highly after desalination of its water and that would threaten fish there, the Environment Protection Agency opposed that plan," he said in a meeting with clerics in Qom.

The energy minister added that therefore his ministry has proposed transferring Persian Gulf and Sea of Oman water to those provinces instead.

Chitchian said that in recent years rainfall has decreased by as much 47 percent in 15 of Iran's 31 provinces.

The energy minister said farmers in those areas have resorted to irrigation with well water to make up for the missing precipitation. "If those farmers will turn off their electrical pumps during the four high electricity usage hours of the day, their electricity during the remaining 20 hours will be provided free of charge," he promised.

He did not speak directly of the problem of the falling water table as a result of farmers pumping out much more water than in the past. However, he said underground water resources across Iran have fallen 10 billion cubic meters to 120 billion cubic meters. He didn't say how long ago the country had 130 billion cubic meters of water.

The energy minister rejected proposals made by some provincial governors and Majlis deputies for more dam construction to resolve the problem.

Chitchian said 92 percent of the country's water is used by agriculture with a lot of that water wasted. In almost all countries, agriculture is the great consumer of water, although not as high as in Iran. Around Lake Urumiyeh, where dams have shut off the flow of water into the lake, a project being managed by the Japanese is trying to get farmers to shift to drip irrigation, where almost all water goes directly to plant roots and does not evaporate from the surface.

Water shortages are expected to remain a key resource problem in Iran, similar to other regions in the

Middle East, and many fear could cause regional instability if policy-makers do not develop long-term water management strategies, particularly for irrigation projects.

The water content of rivers and aquifers is limited in all countries by rainfall, but population is not. The population of Iran has more than doubled since the revolution, increasing the demand for water. And the revolution's goal of self-sufficiency in food production has put great pressure on water resources.

Water availability is considered a severe constraint on socioeconomic development and environmental protection when annual internal renewable water resources fall below 1,000 cubic meters per capita.

Iran's per capita water resources were 2,025 cubic meters in 1990, but are forecast to fall to 816 cubic meters by 2025, according to the United Nations Development Program (UNDP). Currently, a third of Iran's population lives in drought-impacted areas. The shortage of local storage ponds prevents the practical use of much rainfall. Floods occur often.

“Iran's dam-building era may have come to an end.”, 04/08/2014, online at: <http://www.thefreelibrary.com/Iran's+dam-building+era+may+have+come+to+an+end.-a0377288110>

## ❖ A Pipeline From A Land Of Water To A Land Of Oil

Iran is looking for more water and some Iranian officials believe the place to get it is from Tajikistan.

The problem is how to get the water from Tajikistan's mountains to Iran, several hundred kilometers away.

The head of the parliament in Iran's Khorasan Province, Mohammad Reza Mohsin, came up with a new and novel proposal and on August 6 he suggested building a pipeline.

The plan seems a bit unrealistic but it does show Iran's determination to get water from cultural cousins in Tajikistan, because this is not the first time the subject has been raised. Not even close to the first time.

Mohsin's idea is to get the water from Tajikistan's Lake Sarez, which is not only located in a very active seismic zone but the lake itself is the result of a major earthquake that hit the region just over 100 years ago.

RFE/RL's Tajik Service, Ozodi, looked into the proposal and its feasibility. Ozodi found the pipeline would need to be some 600 kilometers long to reach from Khorasan to the Gorno-Badakhshan region in eastern Tajikistan.

The distance is not the problem, the terrain is. Lake Sarez is in a remote location. The road, such as it is, that leads to Sarez is barely adequate for a car to pass and more than 20 kilometers from the lake it gives out altogether. The pipeline would require a passage 10 to 12 meters wide.

And tremors, avalanches, and mudslides wipe out roads and paths in the region regularly.

Ozodi spoke with Homidjon Oripov, an official in Tajikistan's energy department, who said there could still be a way to pipe water from Lake Sarez to Iran.

Oripov noted there were plans to build the Dashtijum hydropower plant downstream from Sarez and suggested the water could enter the proposed pipeline after it spills out from the plant.

Oripov has been negotiating water exports with Iranian officials since 2012. He told Ozodi the idea of exporting water to Iran goes back some 10 years, when an Iranian company sent a letter about water exports to Tajik President Emomali Rahmon. The Iranian government was prepared to invest \$3 billion in a project to bring the water to Khorasan.

Ozodi reported that initial proposal was scrapped, but in 2007 President Rahmon and then-Iranian President Mahmud Ahmadinejad signed an agreement on the export of water from Tajikistan to Iran. And in fact, as of the start of 2013 Tajikistan was supposed to be exporting 1 billion cubic meters of potable water to Iran.

So far, that has not happened.

There have been other means proposed for delivering water. Iran has previously suggested shipping it by rail and sweetened the deal by mentioning it could be an oil-for-water arrangement, and Tajikistan could certainly use the oil. There are plans for construction, starting as soon as next year, of a Turkmenistan-Afghanistan-Tajikistan railway that would run tantalizingly close to Iran's northeastern border.

On paper, it sounds possible but there are some other factors that need to be considered. Although about one-third of Central Asia's water originates in Tajikistan's mountains, roughly half of Tajikistan's population does not have adequate access to drinking water.

A water pipeline would then mirror the problems seen in other Central Asian countries with natural-gas export pipelines. For example, Turkmenistan and Uzbekistan export gas to Russia and China while their own populations suffer through power rationing and gas shortages.

Tajikistan's downstream Central Asian neighbors are already apprehensive about plans to build the enormous Roghun dam in Tajikistan. These downstream countries worry that decreased water supplies from Tajikistan will devastate agriculture in the lowlands. They can be expected to raise objections to Tajikistan selling water, ultimately the region's most valuable resource, to Iran.

“A Pipeline From A Land Of Water To A Land Of Oil”,08/08/2014, online at:<http://www.rferl.org/content/qishloq-ovozi-tajikistan-iran-water-pipeline/26520871.html>

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❖ **President Rouhani asks people to avoid water waste**

TEHRAN -Iranian President Hassan Rouhani in a gathering of people in Shahrekord addressed the shortage of rainfall and limited water reservoirs in Iran and asked citizens to prevent wasting water.

President Rouhani in his speech on Wednesday in the Chaharmahal and Bakhtiari Province asked Iranians not to be apprehensive about water issue, though take strict measures to use water wisely and cautiously since Iran lies in arid zone.

Low rainfall, overuse and misuse of underground water reservoirs along with excess water consumption in the past few years have all led to water scarcity and crisis in many of Iran's provinces.

“President Rouhani asks people to avoid water waste”, 06/08/2014, online at: <http://tehrantimes.com/society/117475-1president-rouhani-asks-people-to-avoid-water-waste>

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### ❖ Water shortages threatens major cities in Iran

NCRI - An official of the Iranian regime has warned about the threat of water shortages in major cities in the country including the capital city.

The official said: Due to the continued drought during the past 14 years and rising water consumption in various sectors, the country's reservoirs are in critical state such that providing drinking water has become a big challenge in recent years.

The official from state-run National Water and Wastewater Engineering Company said that based on a study done by the company last year, it has been expected that 12 major cities in the country with total population of 23 millions face a water shortages.

"The shortages are becoming more evident as we are in hot summer months," he said.

Concerning the state of water provision in major cities, the official stated that the cities of Isfahan and Kerman are in red state while Tehran is in yellow state.

The country of 76 million is facing water shortages. Over the past few months, 12 major cities including Tehran and Shiraz have threatened to implement water rationing should residents fail to cut their use.

A UN resident coordinator for Iran was quoted by Reuters on Sunday saying that: "Water scarcity poses the most severe human security challenge in Iran today".

In January, state-run newspaper Shahrvand reported that 517 of more than 700 cities and towns in Iran were "on the verge of a water crisis" that could result in drinking water shortages, especially during the parched summer.

Mismanagements, excessive damming of rivers, bad irrigation practices, drought and climate change have all contributed to Iran's water crisis which is now considered as a national security issue.

"Water shortages threatens major cities in Iran", 03/08/2014, online at: <http://www.ncr-iran.org/en/news/society/16937-water-shortages-threatens-major-cities-in-iran>

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## ❖ Caspian water transfer project enters environmental protection phase

**TEHRAN** – Iranian Energy Minister Hamid Chitchian says environmental protection studies are being carried out about the transfer of water from the Caspian Sea to central regions of the country.

Feasibility studies of the project have been completed and due to the importance of environmental protection, the plan has been submitted to the Department of Environment for further consideration, the Mehr News Agency quoted Chitchian as saying on Sunday.

Last April, Iran announced a plan to transfer water from the Caspian Sea to central regions of the country, with the goal of providing central provinces with water for industrial and agricultural usages.

The plan, which was launched during the incumbency of former Iranian president Mahmoud Ahmadinejad, was aimed at transferring some 500 million cubic meters of water from the Caspian Sea per annum.

A shortage of rainfall, especially in the central, eastern, and southeastern parts of Iran, has led to a scarcity of drinking and irrigation water.

Department of Environment official Abdolreza Karbasi said in October 2013 that transferring water from the Caspian Sea to the central desert of Iran will lead to an ecological disaster.

“Caspian water transfer project enters environmental protection phase”, 03/08/2014, online at: <http://tehrantimes.com/economy-and-business/117379-caspian-water-transfer-project-enters-environmental-protection-phase>

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### ❖ Dead Volcano, Dying Lake Seen from Space

A volcano that once poked out of a salty lake in Iran now sits on the shores of the drying body of water.

This extinct volcano sits by Lake Urmia, one of the largest lakes in the Middle East, according to NASA's Earth Observatory, But Lake Urmia is shrinking rapidly. Today, it holds only about 5 percent of its maximum volume. In 2013, only 20 percent of the normal surface area of the lake remained after the dry season, according to an Iranian Department of Environment report from March 2014.

"The Lake has almost entirely lost its ecological functions, while the ecological conditions of many satellite wetlands is also in great danger," the report concluded.

"Dead Volcano, Dying Lake Seen from Space", 04/08/2014, online at: <http://www.livescience.com/47177-lake-urmia-from-space-photo.html>

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### ❖ Tehran units targeted for using too much water

*The head of Iran Waterworks reports that 3,000 units in Tehran will have their water temporarily cut off due to excessive water consumption.*

Mohammad Parvaresh told Mehr News on Wednesday August 6 that three months after first issuing warnings, the utility has now decided to punish high-consuming units starting Saturday August 10.

He stated that units consuming more than 50 cubic metres of water each month have been identified and their water will be cut off for seven hours on Saturday. He added that if the high consumption continues after that, they will be referred to the judiciary.

Parvaresh maintained that these high-volume water consumers have been given two warnings, adding that most are from northern part of the city and the excess water goes to watering their orchards and filling up their pools.

Iran is facing a water crisis, with low precipitation and unregulated water consumption depleting many water resources.

“Tehran units targeted for using too much water”, 06/08/2014, online at: <http://theiranproject.com/blog/2014/08/06/tehran-units-targeted-for-using-too-much-water/>

### ❖ Iran is looking to get water from Tajikistan

DUSHANBE, August 9, Asia-Plus – An article “A Pipeline from a Land of Water to a Land of Oil” by Bruce Pannier that was posted on Radio Liberty’s website on August 8 notes that Iran is looking for more water and some Iranian officials believe the place to get it is from Tajikistan.

The head of the parliament in Iran's Khorasan Province, Mohammad Reza Mohsin, reportedly came up with a new and novel proposal and on August 6 he suggested building a pipeline.

The plan seems a bit unrealistic but it does show Iran's determination to get water from cultural cousins in Tajikistan, because this is not the first time the subject has been raised, the article notes.

Mohsin's idea is to get the water from Tajikistan's Lake Sarez and Radio Liberty’s Tajik Service, Ozodi, looked into the proposal and its feasibility. Ozodi found the pipeline would need to be some 600 kilometers long to reach from Khorasan to the Gorno-Badakhshan Autonomous Region (GBAO) in southeastern Tajikistan.

The distance is not the problem, the terrain is. Lake Sarez is in a remote location. The road, such as it is, that leads to Sarez is barely adequate for a car to pass and more than 20 kilometers from the lake it gives out altogether. The pipeline would require a passage 10 to 12 meters wide. And tremors, avalanches, and mudslides wipe out roads and paths in the region regularly.

Ozodi spoke with Homidjon Oripov, an official in Tajikistan's energy department, who said there could still be a way to pipe water from Lake Sarez to Iran.

Oripov noted there were plans to build the Dashtijum hydropower plant downstream from Sarez and suggested the water could enter the proposed pipeline after it spills out from the plant.

Oripov has been negotiating water exports with Iranian officials since 2012. He told Ozodi the idea of exporting water to Iran goes back some 10 years, when an Iranian company sent a letter about water exports to Tajik President Emomali Rahmon. The Iranian government was prepared to invest \$3 billion in a project to bring the water to Khorasan.

Ozodi reported that initial proposal was scrapped, but in 2007 President Rahmon and then-Iranian President Mahmud Ahmadinejad signed an agreement on the export of water from Tajikistan to Iran. And in fact, as of the start of 2013 Tajikistan was supposed to be exporting 1 billion cubic meters of potable water to Iran.

So far, that has not happened.

There have been other means proposed for delivering water. Iran has previously suggested shipping it by rail and sweetened the deal by mentioning it could be an oil-for-water arrangement, and Tajikistan could certainly use the oil. There are plans for construction, starting as soon as next year, of a Turkmenistan-Afghanistan-Tajikistan railway that would run tantalizingly close to Iran's northeastern border.

On paper, it sounds possible but there are some other factors that need to be considered, the article says. Although about one-third of Central Asia's water originates in Tajikistan's mountains, roughly half of Tajikistan's population does not have adequate access to drinking water.

A water pipeline would then mirror the problems seen in other Central Asian countries with natural-gas export pipelines. For example, Turkmenistan and Uzbekistan export gas to Russia and China while their own populations suffer through power rationing and gas shortages.

Tajikistan's downstream Central Asian neighbors are already apprehensive about plans to build the enormous Roghun dam in Tajikistan. These downstream countries worry that decreased water supplies from Tajikistan will devastate agriculture in the lowlands. They can be expected to raise objections to Tajikistan selling water, ultimately the region's most valuable resource, to Iran.

“Iran is looking to get water from Tajikistan”, 09/08/2014, online at: <http://news.tj/en/news/iran-looking-get-water-tajikistan>

❖ **More than 70 per cent of Gazans have no drinking water**

Head of the Palestinian Water Authority (PWA) Shaddad Attili said on Tuesday that the Gaza Strip is suffering a severe shortage of clean drinking water, calling the water situation "disastrous" after heavy Israeli attacks on the network of water pipes.

Speaking to Anadolu news agency, Attili said that 70 percent of the water pipelines have been damaged and that the 1.8 million Gazans are surviving on only 30 percent of the Strip's capacity.

He went on to say that the water from some of the wells along the Strip was mixed with sewage. In addition 50 per cent of the sewage was pouring into the sea without being filtered because of the damage to the pipelines.

Gaza is one of the most world densely populated areas, where around 1.8 million people live in 360km<sup>2</sup>.

The PWA previously condemned Israeli plans to establish a security area 3km along the Gaza Strip. The PWA said this area, 36 percent of the Gaza strip, includes most of the resources for drinking water.

The PWA called upon the international community to intervene in order to prevent this and to allow chloride, which is used to sterilise drinking water, into the Strip. They also called for fuel to be allowed in to run water wells.

According to the statement, the Gaza Strip is in an urgent need of large tankers to distribute drinking water to urgently fulfil the needs of its residents.

During the war, Palestinian housing and work ministry said that Israel had destroyed 25 percent of the infrastructure. Executive manager of the Palestinian Telecom Company said that 85 percent of wired and wireless telephone facilities were destroyed.

Israel killed 1,875 Palestinians, including 426 children and 255 women, and wounded 9,893; more than half of them are children and women, according to the ministry of health. 10,606 homes were destroyed, including 1,724 that were completely destroyed. It attacked 132 mosques; 42 of them were

completely destroyed. Six universities and 188 schools, as well as 19 banks and exchange offices were directly attacked.

More than 315 factories, 27 public services facilities and 52 fishing boats were also destroyed.

“More than 70 per cent of Gazans have no drinking water”, 06/08/2014, online at:

<https://www.middleeastmonitor.com/news/middle-east/13294-more-than-70-per-cent-of-gazans-have-no-drinking-water>

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### ❖ Israeli war deteriorated Gaza water crisis

Imagine a coastal enclave dries up and runs out of water. Gaza which lies between the arms of the Mediterranean, is now, a crisis water area...

Most of the families in the Gaza Strip do not have access to water, both drinking & running water. However, the people would now dig in the ground for any water if it works for them. Most areas in Gaza face unhealthy water because water supplies reach the population without being treated. Still, these areas are more fortunate than others that have no water at all. The damage does not only involve what happened to the water networks or the lack of accessibility. It has gone much beyond that. The humanitarian crisis in Gaza Strip due to the offensive "Protective Edge" exceeds the red lines. The Palestinians in Gaza have been suffering enough from the deteriorated condition of water. And now, it's has even gone worse. Much work needs to be done to rescue the Palestinian livelihood.

"Israeli war deteriorated Gaza water crisis", 06/08/2014, online at:

<http://www.presstv.ir/detail/2014/08/06/374208/israeli-war-deteriorated-gaza-water-crisis/>

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## ❖ When Rain Fails, Use Waste Water for Irrigation, Advises Israeli Expert

BANGALORE: While major dams in the state are holding water to their maximum capacity, at least 10 districts are still facing prospects of drought owing to deficit rainfall in the past two months.

From June to July, 67 taluks in districts such as Bidar, Bijapur, Gulbarga, Raichur and Yadgir have recorded deficit rainfall in the range of -20 per cent to -59 per cent of normal rainfall, according to Karnataka State Natural Disaster Monitoring Centre.

Is there hope for rains? The latest agromet advisory issued by the Meteorological Department says: “No significant change.”

With natural water resources failing, the state could look up to Israel, a country that has used various techniques to counter drought in the past five decades despite its terrain being 60 per cent desert.

Israel’s climate is Mediterranean, with precipitation levels as high as 1,000 mm in the north and as low as 30 mm in the south. While it rains mostly during winters, the farmers have to irrigate during the remainder of the year.

Director of Jacob Blaustein Institutes for Desert Research of the Ben-Gurion University in Negev desert, Israel, Pedro Berliner, gives an insight on how irrigation is carried out with little rain.

“Over the last 50 years, what has been done is to improve the way water is applied to crops to minimise its use and increase the yield at the same time. Importantly, 80 per cent of Israel’s urban waste water is treated and reused for agriculture and more than half of the water used today for agriculture is this,” the dryland agriculture expert told Express.

This method, Berliner said, has added considerable volumes of water to Israel’s irrigation schemes, besides adding to a small list of available water resources that includes a large reservoir in the lake of Galilee, where water is stored and conveyed throughout the country.

“Quite a number of the urban wastewater treatment plants are closer to smaller cities and locally used. This is an approach that I think would increase the amount of water when natural underground and surface water resources are not enough,” he added.

Trickle or drip irrigation plays a great role in increasing the efficiency of water application, which if done properly, can ensure the best conditions for plant development and maximum yield. Interestingly, the farmers in Israel have a solution to the problem of drip irrigation water evaporating.

“When you water a crop, you are also watering the soil surface and water will evaporate. The water that is lost directly to the atmosphere is of no use to the crop as it does not reach the roots. We have developed a simple yet efficient technique, in which the area between the rows of crops are covered by materials with different chemical properties in order to decrease the amount of water lost due to evaporation, thereby increasing water use efficiency,” he said.

According to a recent research paper authored by Dr Prodipto Ghosh and Dr Girija Bharat from The Energy and Resources Institute, the agricultural sector consumes over 80 per cent of the water resources in India, with irrigation efficiency at just 35 per cent.

The paper also states that only 16 per cent of farmers are aware of irrigation efficiency techniques.

Water is a property of the state in Israel, Berliner said. Water pumping policies are decided by government agencies and not individual farmers, ensuring that there is no drop in the water table.

In Mandya alone, according to Registrar M B Rajegowda of University of Agricultural Sciences Bangalore, more than half of irrigation water is wasted.

Asked if a similar legislation would work here, Berliner was cautious. “It would be best technically but may not be feasible politically,” he said.

Israel has also taken the lead in desalination, a technique that allows farmers to use water directly from the sea by removing the salt content.

Karnataka government has set aside `11,349 crore for major and minor irrigation projects, mostly based on river canals.

Rajegowda welcomed the idea of using wastewater for irrigation, but lamented the lack of political will.

“We need politicians who are willing to take such drastic measures. Another problem would be the initial investment. It would require creating channels and laying of pipes and so on. But it can certainly be done,” he added.

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“When Rain Fails, Use Waste Water for Irrigation, Advises Israeli Expert”, 04/08/2014, online at:  
<http://www.newindianexpress.com/states/karnataka/When-Rain-Fails-Use-Waste-Water-for-Irrigation-Advises-Israeli-Expert/2014/08/04/article2363631.ece>

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❖ **Japan Provides \$1 Million in Support of Water, Sanitation and Hygiene Emergency Needs for Gazans**

JERUSALEM, August 6, 2014 (Wafa) – The Government and people of Japan have contributed USD 1 million to support UNICEF’s emergency response to the water, sanitation and hygiene emergency needs of children and women in Gaza during on-going conflict,” Wednesday said a statement by the UNICEF Jerusalem office.

“Up to now, we have been witnessing a rapidly unfolding catastrophe in Gaza due to the lack of sufficient, safe, and continued humanitarian access for routine operations and repairs of water and sanitation services,” said June Kunugi, UNICEF Special Representative, State of Palestine.

“Access to clean water for drinking, personal hygiene and domestic use can make the difference between life and death for children and their families,” she said, adding: “For this we thank the people and the Government of Japan for their enduring and generous commitment and support to Palestinian children.”

Meanwhile, Junya Matsuura, Ambassador for Palestinian Affairs and Representative to the Palestinian Authority of the Government of Japan explained that the Government and people of Japan have contributed USD 1 million through UNICEF, as part of Japan's assistance to the Palestinian people and especially in Gaza, “who were affected by the confrontation between Israel and militants in Gaza strip,” according to the statement.

“Furthermore, Ambassador Matsuura emphasized that Japan continues to make efforts to achieve a ceasefire in coordination with the international community.”

The Japanese grant will allow UNICEF to enable water tankering, provide baby and family hygiene kits, and needed supplies to repair damaged water, wastewater networks, wells and generators.

“Since the beginning of the conflict in July, more than 285,000 people, of whom 50 per cent are children, are sheltered at 90 UNRWA and 19 public schools, and are in dire need of drinking water, water storage containers, and family and baby hygiene kits,” the statement stressed.

“An estimated 1.5 million people who are not taking shelter in designated internally displaced areas have extremely restricted access to water, as water service providers cannot access the facilities to conduct their daily operations and carry out urgently needed repairs and maintenance.”

“Japan Provides \$1 Million in Support of Water, Sanitation and Hygiene Emergency Needs for Gazans”, 06/08/2014, online at: <http://english.wafa.ps/index.php?action=detail&id=26154>

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## ❖ Water Scarcity Increasing Populations' Vulnerability, UN Report Shows

Global risks associated with climate change appear to be intensifying, increasing droughts in arid regions and making extreme storms even stronger, the 2014 Human Development Report published by the UN Development Programme states. "It will also lead to rising sea levels, flooding, water scarcity in key regions, the migration or extinction of plant and animal species, and the acidification of oceans," this comprehensive report predicts.

Recently released in Tokyo by UNDP, the report is titled "Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience." It includes tables listing health indices for children and adults in countries worldwide. One table addressing freshwater withdrawals, unsafe water, and unimproved sanitation and poor hygiene lists dozens of countries where these are major problems; countries including Niger, Nigeria, Yemen, Zimbabwe, Haiti, Ethiopia, and Uganda are among them.

However, every country faces growing problems of scarce water, poor sanitation, soil erosion, the report states. According to the UNDP Multidimensional Poverty Index, almost 1.5 billion people in 91 developing countries are living in poverty with overlapping deprivations in health, education, and living standards. The report examines the risks posed by natural or human-induced disasters and crises and offers strategies and examples of ways some countries are addressing them.

"Setbacks are not inevitable. While every society is vulnerable to risk, some suffer far less harm and recover more quickly than others when adversity strikes," said UNDP Administrator Helen Clark. "By addressing vulnerabilities, all people may share in development progress and human development will become increasingly equitable and sustainable."

It recommends universal access to basic social services, especially health and education, and a commitment to full employment. The report includes a commentary on the dangers posed by climate change, written by Rajendra Pachauri, chair of the Intergovernmental Panel on Climate Change. While the report says there are grave risks to all countries, it may be most damaging to developing countries: "Between 2000 and 2012 more than 200 million people, most of them in developing countries, were hit by natural disasters every year, especially by floods and droughts. The 2011 Human Development Report showed how continuing failure to slow the pace of global warming could jeopardize poverty eradication, because the world's poorest communities are the most vulnerable to rising temperatures and seas and to other consequences of climate change."

Discussing health risks, the report notes that paying for health care has become a major cause of impoverishment for the poor and even the middle class in India, and the HIV/AIDS epidemic, the accelerating spread of malaria and tuberculosis, the rapid spread of dengue and swine flu, and increasing threats of bioterrorism are increasing vulnerability worldwide.

"Changes in rainfall and temperature will be felt most acutely by the people who depend on natural systems for growing crops and raising livestock and by those who depend on them for food. In

particular, farmers without access to irrigation will most immediately feel the impacts of unpredictable rainfall. Smallholder farmers in South Asia are particularly vulnerable—India alone has 93 million small farms. These groups already face water scarcity. Some studies predict crop yields up to 30 percent lower over the next decades, even as population pressures continue to rise," it states.

Khalid Malik, director of the Human Development Report Office, explained how the 2014 report differs from the previous year's report. "The 2013 report was about how so many more people are doing better, particularly over the last decade. This year's report is also trying to look at those who have not done so well. And also look at how the world itself is getting a little bit more fractious, a little less predictable," he said. "There is a growing sense of unease as if somehow people are not in control of their own destinies. It's both at the country level and it's also on the global level. And this report tries to dig into those issues of vulnerability and then try to understand what policies, what measures are needed to make people and societies more resilient."

“Water Scarcity Increasing Populations' Vulnerability, UN Report Shows”, 04/08/2014, online at: <http://eponline.com/articles/2014/08/04/water-scarcity-increasing-populations-vulnerability.aspx>

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## ❖ Water war bubbling up between Zimbabwe and Botswana

Botswana's move to draw water from the Zambezi River without an agreement by all parties to the Zambezi Watercourse Commission (ZAMCOM) Protocol has sparked a water war with Zimbabwe and other affected countries.

Zimbabwe fears the abstraction of the water from the Zambezi upstream will reduce the downstream flow of the Zambezi affecting the country's premier resort spot - the Victoria Falls and Lake Kariba which generates power for the country.

Details of the dispute which has heated up emerged at a national stakeholders' workshop on the sustainable use of Zimbabwe's wetlands which was held yesterday in the capital.

Participants at the workshop which was organised by the Ministry of Environment, Water and Climate, the Environmental Management Agency and the World Wide Fund for Nature (WWF) heard that Botswana had set up water abstraction works at the confluence of Chobe River and the Zambezi River violating the ZAMCOM Protocol.

The protocol demands that a country should seek the consent of all eight riparian member states (Zimbabwe, Zambia, Botswana, Tanzania, Mozambique, Malawi, Namibia and Angola) before it can draw water from the Zambezi River.

"One presenter here said Zimbabwe was not involved in a war over water unlike some countries in the Middle East which once went to war over water, I am afraid that the opposite could be true as a conflict of water is bubbling up," said one senior water expert in the Ministry of Environment, Water and Climate without naming the country.

"A member of ZAMCOM has taken upon himself to draw water from the Zambezi River without the consent of other parties. The plan by this member will endanger our ecosystem, our wildlife and even the future survival of the Victoria Falls."

"Little did we know that the member state had gone ahead to draw the water despite the fact that Zimbabwe had offered the country to draw water downstream of the Victoria Falls.

"Zimbabwe is preparing itself to go to war over the utilisation of the Zambezi waters!" Media reports indicate that Botswana had for years been considering to negotiate for shared water resources with other riparian states to meet its growing water demands.

The country is said to have pressed ahead with the plan to draw water from the Zambezi after it exhausted all its suitable sites for dam construction.

Botswana has a major water infrastructure that carries water from Letsibogo dam in the northern part of the country to the southern part over a distance of more than 400km to Gaborone. The move to the confluence of the Chobe River and the Zambezi River is an extension of this project.

In an interview with the European Times recently, Botswana's Minister of Minerals, Energy and Water Resources Onkokame Kitso Mokaila confirmed his country's plans to tap water from the Zambezi River when asked about how his country sought to ensure adequate supplies of clean water in the coming years.

"We have quite a few dams in northern Botswana but we do not have adequate infrastructure to bring the water to the southern part of the country, so the government has fasttracked development of this infrastructure," he was quoted saying.

"We have negotiated treaties with other countries to tap 495 cubic metres of water from the Zambezi River for agriculture and drinking, and we are in the process of tendering to build the water pipeline."

Environment, Water and Climate Deputy Minister Engineer Simon Musanhu said he was aware of the dispute over the Zambezi waters but did not have full details.

"I do not have the full report as yet but it's about the issue of Botswana drawing water from upstream

of the Zambezi for its own use," he said.

"We still don't have much information but we know is that they went ahead to draw water from the Zambezi (allegedly) without the knowledge of other parties.

"It's a sensitive matter and we are still to engage them over the matter."

The dispute has heated up and both sides are said to be engaged in intense discussion to resolve all misunderstandings.

The Zambezi watercourse is of particular importance in the region because it is shared by eight countries with a total population of over 50 million.

"Water war bubbling up between Zimbabwe and Botswana", Sifelani Tsiko, 08/08/2014, online at:  
<http://www.bulawayo24.com/index-id-opinion-sc-columnist-byo-51914.html>

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### ❖ Ethiopia, Egypt differ on Nile dam statement

A 7-point statement issued following a June meeting between Ethiopian Prime Minister Hailemariam Dessalegn and Egyptian President Abdel-Fattah al-Sisi on a controversial Ethiopian dam on the Nile is a new source of contention between Addis Ababa and Cairo.

While Egypt wants to discuss the seven points of the statement, Ethiopia insists on discussing only the fourth point about the resumption of the tripartite talks.

"Egypt wants to discuss all the seven points of the communiqué but Ethiopia insists on discussing the 4th point alone," Fekahmed Negash, director-general of boundary and trans-boundary rivers at Ethiopia's Water Ministry, told Anadolu Agency on Thursday.

Negash said that "Ethiopia will discuss only this point because the rest are related to bilateral relations between Ethiopia and Egypt and they need to be considered separately."

Set up in 2011, a tripartite technical committee was tasked with studying the impact of the Grand Ethiopian Renaissance Dam on the two downstream states.

The committee's activities, however, were suspended in January amid mounting tension between Cairo and Addis Ababa. But Addis Ababa, Cairo and Khartoum agreed to resume the tripartite talks on August 26.

In recent years, tension has marred relations between Ethiopia and Egypt over the former's construction of a major dam project on the upper reaches of the Nile River, which represents Egypt's primary water source.

Ethiopia says the dam is necessary for its national development plans. It insists the project won't impact Egypt's traditional share of Nile water, which has long been determined by a colonial-era water-sharing treaty that Addis Ababa has never acknowledged.

### **Ethiopian public cover 26 percent of cost**

Some 26 percent of the total cost needed for the construction of a multi-billion dollar hydro-electric dam on the Nile are being covered by the Ethiopian public, an Ethiopian spokesman said Thursday.

"The public, including children, are showing interest to put their fingerprints on the Grand Ethiopian Renaissance Dam (GERD)," Fekadu Ketema, spokesman for the office of the National Council for Coordination and Public Participation for the Construction of GERD, told Anadolu Agency.

"The bond sale is well in progress and additional fundraising mechanisms including SMS and lottery awards are put in place side by side with the bond sale with a view to enabling all segments of the society to provide financial support to the dam construction," he said.

Ketema said that the fourth round of a bond purchasing program has already been launched.

"There is no shortage of money at all and such schemes are designed just to fulfill the interest of all Ethiopians to put their fingerprints on the dam," he said.

He went on to say that even Salini Construction Company, the Italian firm which is building the dam, has confirmed that "there is no financial shortage for construction of the dam."

Ketema expected that the 4.8-billion-dollar dam – of which 35.8 percent of its construction has completed – will be operational as scheduled.

Some 8750 employees are engaged in the construction of the dam with 2200 different types of machinery deployed to the site.

"Ethiopia, Egypt differ on Nile dam statement", 07/08/2014, online at:

<http://www.worldbulletin.net/news/142101/ethiopia-egypt-differ-on-nile-dam-statement>

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## ❖ Middle East companies run over \$1bn worth projects in Ethiopia

Middle East companies are running 179 investment projects worth over \$1 billion in Ethiopia, the Ethiopian Investment Agency said Tuesday.

In statements to Anadolu Agency, communication director Getahun Negash said the projects are being carried out in different fields as manufacturing, agriculture, real estate and machinery.

"Some 80 of the total projects are in the manufacturing sector as the government gives prime attention to the sector," Negash said.

"Second to manufacturing is the agriculture sector, which supplies inputs to the manufacturing sector. Some 35 of the total projects are in the agriculture sector," he said.

Negash said Saudi Arabia has the lion's share of the Middle Eastern investment projects in Ethiopia with 86 projects, followed by Yemen and Egypt, which have 29 and 23 projects respectively.

According to Negash, Ethiopia, given its geographical location, has always had economic, cultural and commercial ties to the Middle East.

He said that African countries as Sudan, Egypt, South Africa and Nigeria have investments in Ethiopia.

"The Sudanese have the largest investment in Ethiopia compared to other African countries," he said.

### **Cultural ties**

Negash denied any drastic changes in Egyptian investments in Ethiopia due to tension between the two countries over a controversial Ethiopian dam on the Nile.

"We do not mix politics with investment. We treat Egyptian investors the same way we give service to others," he said.

In recent years, tension has marred relations between Ethiopia and Egypt over the former's construction of a major dam project on the upper reaches of the Nile River, which represents Egypt's primary water source.

Ethiopia says the dam is necessary for its national development plans. It insists the project won't impact Egypt's traditional share of Nile water, which has long been determined by a colonial-era water-sharing treaty that Addis Ababa has never acknowledged.

Negash said that Ethiopia has strong cultural ties with Arab countries.

"Ethiopia is one of the African countries, which have close cultures with the Arab world and this can be mentioned as part of the factors that attract investors from Arab countries," he said.

"Cheap labor and incentives are also motivational. The prevailing peace and stability, geographical location, bilateral cooperation signed with different countries as well as the existing sound investment policy helped the country to attract more investors," he said.

“Middle East companies run over \$1bn worth projects in Ethiopia”, 06/08/2014, online at:  
<http://www.worldbulletin.net/news/141988/middle-east-companies-run-over-1bn-worth-projects-in-ethiopia>

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## ❖ China quake reignites debate on country's rush to build large dams

BEIJING — As the death toll from an earthquake in southwestern China rose to 589 on Wednesday, it has rekindled a debate about whether the country's rush to build big dams is to blame for such calamities.

Search-and-rescue teams took advantage of drier weather Wednesday to push into the hard-hit mountain communities after the magnitude 6.1 quake, the country's deadliest in four years, struck near the city of Zhaotong in Yunnan province.

But questions are once again being asked about China's rush to build big dams in its southwestern mountains, especially in the wake of a number of smaller quakes since the water level was raised last year at the Xiluodu hydropower station, which lies about 100 miles north of the epicenter of Sunday's quake.

"Why do earthquakes keep happening in that area?" Wang Yongchen of the environmental group Green Earth Volunteers wrote on his microblogging account. "We can't afford not to ask the reason why."

Large reservoirs are known to put pressure on Earth's crust and can cause quakes, although the link is often hard to establish definitively. China's dash for hydropower, linked to soaring energy needs, has been the subject of much criticism, especially because many of the dams are being built in regions of "high or very high seismic hazard."

In May 2008, a debate erupted after a magnitude 8.0 quake struck in Sichuan province, killing nearly 90,000 people, including thousands of children. Some geologists argued that a nearby mega-dam could have been responsible, but government hydro-engineers said reservoirs are more likely to cause small quakes, relieving pressure on Earth's crust, than large ones.

Yet, now, some government scientists are voicing concern.

Fan Xiao, chief engineer in the Sichuan Geology and Mineral Bureau, said that more than 2,000 small quakes had been detected since the water level increase at the Xiluodu dam in October and that a magnitude 5.3 temblor was observed near the hydropower station in April.

"It all suggested the elevated water levels at the hydro station might have caused an increase in crustal movement," he said. It was a pattern similar to that observed in Sichuan in 2008, he said.

"We cannot rule out the possibility that this earthquake might be related to the dams in the area," he said.

There are 25 dams planned or under construction on the Jinsha River, a 1,400-mile tributary of the Yangtze River that runs through Zhaotong.

Independent geologist Yang Yong has been arguing for years that the dams were an environmental disaster and an accident waiting to happen. The area is prone to quakes, with a magnitude 7.0 temblor killing more than 1,400 people in 1974.

There is also the risk of dams breaking during a quake, causing flooding and even higher loss of life, he says.

The official Xinhua News Agency reported this week that a huge lake has formed as a result of landslides caused by Sunday's earthquake, containing close to 50 million cubic meters of water. The lake is near an under-construction hydropower station and threatens seven other stations downstream, it reported.

Deng Fei, an investigative reporter who leads charity campaigns, said he was concerned by the dam building on the Jinsha when he visited several years ago. "I felt scared at the time," he posted on his microblogging account. "We are fighting heaven and earth in this way — aren't we scared of retributions?"

"China quake reignites debate on country's rush to build large dams", 08/08/2014, online at:

[http://www.washingtonpost.com/world/asia\\_pacific/china-quake-reignites-debate-on-countrys-rush-to-build-large-dams/2014/08/06/9f72a087-27d3-48d5-b26f-435de700e04c\\_story.html](http://www.washingtonpost.com/world/asia_pacific/china-quake-reignites-debate-on-countrys-rush-to-build-large-dams/2014/08/06/9f72a087-27d3-48d5-b26f-435de700e04c_story.html)

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