



ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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



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29 September – 05 October 2014

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❖ Turkey builds massive pipeline to send drinking water to thirsty Cyprus

An ambitious pipeline project linking reservoirs in Turkey to the parched, isolated Turkish Republic of Northern Cyprus is on track to bring much needed drinking water to the island by year's end.

Engineers behind the Baris Su ("Peace Water") project said earlier this month they passed the halfway point on the 66-mile undersea pipeline, and could be delivering fresh water from Turkey to Turkish Cypriots for drinking and agricultural development by the end of the year.

When completed, the \$500 million-plus pipeline is projected to deliver some 19.8 billion gallons of water annually and give the ethnic Turkish enclave significant new economic and political leverage in the standoff with the majority Greek Cypriot community that has kept the Mediterranean island divided for four decades.

Turkish officials, including President Recep Tayyip Erdogan, who visited the island this month, say they hope the prospect of a reliable water source will spur the local economy and give fresh impetus to reconciliation talks between the two communities. Mr. Erdogan told Turkish Cypriot leaders the water could be used by both the Greek and Turkish communities, but only "as long as [Greek Cypriots] take the hand of peace we are offering."

Water is a constant concern for the island, which has intensified desalination and conservation efforts in recent years to compensate. The Cyprus News Agency reported in August that the island's reservoirs were at only 37 percent capacity, down from 73 percent a year earlier. The Baris Su pipeline is designed to meet the Turkish Republic's drinking and irrigation needs through at least 2040.

“Water is like oil and gas for the region,” Veysel Ayhan, director of the International Middle East Peace Research Center, an Ankara think tank, told the online regional news service Al Monitor.

“Turkey builds massive pipeline to send drinking water to thirsty Cyprus”, 30/09/2014, online at:
<http://www.washingtontimes.com/news/2014/sep/30/turkey-builds-massive-pipeline-to-send-drinking-wa/>

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❖ ISIL militants seizes town close to Haditha Dam

The ISIL terrorists have reportedly seized a western Iraqi town close to the Haditha Dam, the second-largest generator of hydroelectricity in the country's power system.

The Takfiri militants took control of Kubaisa in the western al-Anbar Province on Saturday, forcing residents to flee their homes.

Hospital officials said at least two civilians were killed and six were wounded in the takeover. The number of dead Iraqi soldiers, however, was not immediately reported.

The development came just two days after the terrorist group took control of the nearby town of Hit in Anbar. The fall of Kubaisa endangers the strategic Ain al-Asad military base which Iraqi forces use to defend the Haditha Dam.

Meanwhile, heavy fighting is underway between the government forces and the ISIL terrorists in northern and western Iraq. Army troops, backed by Shia and Sunni tribal fighters, have already made gains in Diyala, Salahuddin and Nineveh provinces.

The ISIL cult entered Iraq in mid-June. The extremist group since then has tried to take control of largest resources in the country, including oil refineries and, for a brief period, the country's largest dam in Mosul.

Anbar Province has been a major stronghold of the ISIL elements and continues to be largely controlled by the terror group. The province is the largest governorate in Iraq and shares a border with Jordan, war-ravaged Syria and Saudi Arabia.

The Takfiri ISIL militants have seized large swathes of Iraq and Syria. They have carried out horrific acts of violence in the two countries, including public decapitations and crucifixions against all Iraqi communities

"ISIL militants seizes town close to Haditha Dam", 05/10/2014, online at:
<http://www.presstv.ir/detail/2014/10/05/381147/isil-seizes-town-close-to-haditha-dam/>

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❖ **Once-mighty Aral Sea reduced to largely salt**

Striking photos from NASA show that the Aral Sea, once the fourth largest lake in the world, has shrunk to its smallest size in modern history. Dwindling water stocks follow more than five decades of humans siphoning from the rivers that feed the sea and a recent summer that was hotter and drier than usual.

The central Asian body of water — the remnants of an ancient, larger body of salt water — has been reduced to fraction of its former size, with wind carrying the remaining salt and sand for hundreds of miles around the region, damaging crops.

“It is likely the first time it has completely dried in 600 years,” Philip Micklin, a geographer and Aral Sea expert, said in a [statement from NASA](#).

The borders of Kazakhstan, Turkmenistan and Uzbekistan straddle the former boundaries of the fast-drying sea. Soviet engineers in the 1950s started using water from the two rivers that supplied water to it, the Syr Darya in the north and the Amu Darya in the south, for the irrigation of farms.

By 2001, the disappearing lake had split into two halves, one smaller northern segment and another larger southern half. By building a dam between the northern and southern halves in 2005, Kazakhstan tried to stem the shrinkage of the northern part of the sea. Engineers allowed the Syr Darya to continue to flow into the smaller, northern basin of the sea.

But for the larger, southern basin, the one that is now dry, the dam was a “death sentence” because it prevented the flow of water, NASA said.

The Aral Sea is not the only body of water threatened by human acts. The Dead Sea – which borders the Occupied Palestinian Territories, Israel and Jordan – is also shrinking fast. Both Israel and Jordan use the mineral-rich water to extract valuable commodities used in cosmetics. Israel has also dammed the Jordan River, which used to supply water from the Sea of Galilee to the Dead Sea.

“Once-mighty Aral Sea reduced to largely salt”, 01/10/2014, online at: <http://america.aljazeera.com/articles/2014/10/1/aral-sea-shrink.html>

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❖ **Satellite images show Aral Sea basin 'completely dried'**

An area of the Central Asian inland sea – once the fourth largest in the world – was left parched in August, according to Nasa photographs

A large section of the Aral Sea has completely dried up for the first time in modern history, according to Nasa.

Images from the US space agency's Terra satellite released last week show that the eastern basin of the Central Asian inland sea – which stretched across Kazakhstan and Uzbekistan and was once the fourth largest in the world – was totally parched in August. Images taken in 2000 show an extensive body of water covering the same area.

“This is the first time the eastern basin has completely dried in modern times,” Philip Micklin, a geographer emeritus from Western Michigan University told Nasa. “And it is likely the first time it has completely dried in 600 years, since Medieval desiccation associated with diversion of Amu Darya to the Caspian Sea.”

In the 1950s, two of the region's major rivers – the Amu Darya and the Syr Darya – were diverted by the Soviet government to provide irrigation for cotton production in Uzbekistan and Turkmenistan, starving the Aral. It has been diminishing ever since, with the sea level dropping 16 metres between 1960 and 1996, according to the World Bank. Water levels are believed to be down to less than 10 per cent of what they were five decades ago.

A lack of rain and snow on the Pamir Mountains has contributed to the particularly low water levels this summer, said Micklin.

The Nasa satellite began taking pictures of the Aral Sea in 2000. Back then, it had already separated into the northern portion in Kazakhstan and the southern portion in Uzbekistan. The southern area of the Aral also split into western and eastern areas.

Efforts have been made to try and improve conditions in the north Aral sea, which were hailed as a partial success. But water from the Amu Darya and south Aral is still used to maintain Uzbekistan's crucial cotton industry. Though water levels do fluctuate, few believe they could ever return to those seen in the 1960s .

More than 60 million people live around the Aral Sea basin. The lack of water has devastated the region's fishing industry, leaving ship graveyards as well as large areas of salted sand, which is easily kicked up by winds and contributes to health problems.

“Satellite images show Aral Sea basin 'completely dried’”, 01/10/2014, online at:
http://www.theguardian.com/world/2014/oct/01/satellite-images-show-aral-sea-basin-completely-dried?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=2ada0cb75b-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-2ada0cb75b-250657169

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❖ **Resources: Curb vast water use in central Asia**

Shipwrecks rusting in the desert have come to symbolize the environmental havoc that has befallen the Aral Sea, which straddles Kazakhstan and Uzbekistan. More than 90% of what was once the fourth-largest lake in the world has vanished in half a century^{1, 2, 3}. The cracked shores are symptoms of the dramatic overuse of water in central Asia. Since the 1960s, 70% of Turkmenistan has become desert, and half of Uzbekistan's soil has become salty owing to dust blown from the dry bed of the Aral Sea¹.

The republics of Uzbekistan, Tajikistan, Turkmenistan, Kyrgyzstan and Kazakhstan were developed as farming states to supply produce to the former Soviet Union¹. Today, they are among the highest per capita users of water in the world — on average, each Turkmen consumes 4 times more water than a US citizen, and 13 times more than a Chinese one⁴ (see 'Top 20 consumers'). More than 90% of the region's water use is irrigating thirsty crops including cotton and wheat^{1, 2}.

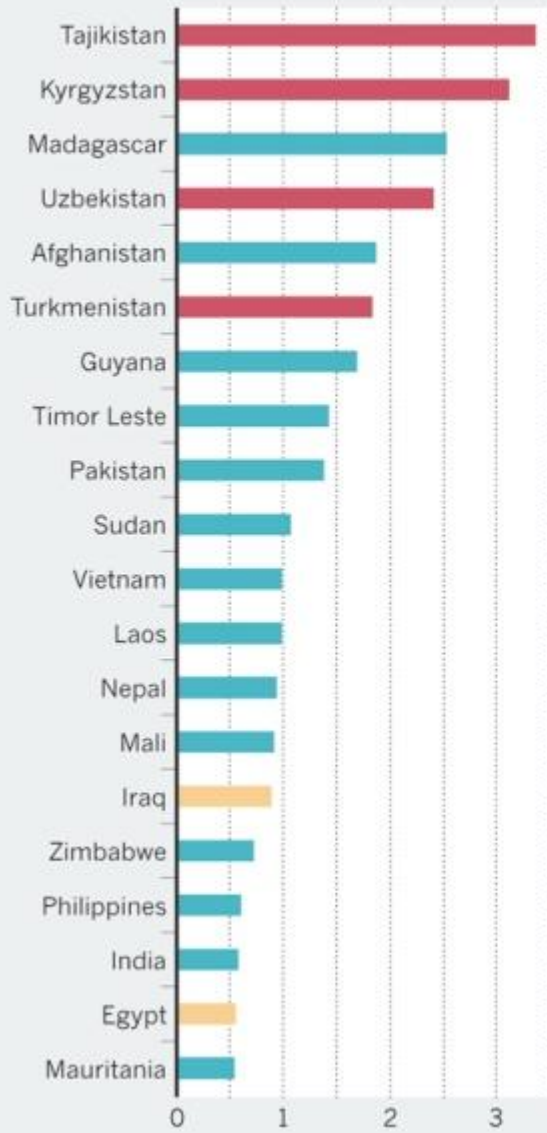
Decades of over-extraction have nearly sucked dry the Amu Darya and Syr Darya rivers that feed the Aral Sea. Local livelihoods that rely on livestock grazing, hunting and fishing have disappeared; ecosystems in the Aral's brackish waters, deltas, coasts, steppes and fertile river valleys have collapsed¹. As water bodies have vanished, the local climate has become harsher: summers bring extreme heat and violent, salty dust storms; winters are more severely cold. The wind spreads salt and agrochemicals to farmlands hundreds of kilometres away, causing respiratory and gastroenterological diseases as well as anaemia, cancer and tuberculosis^{3, 5}.

Struggling to shake off the Soviet legacy of environmental and political crises and oligarchies, these republics are more rivals than neighbours. Because most of the region's water bodies — mainly the Syr Darya, Amu Darya and Zarafshon rivers — are shared, political tensions have grown around water access, drawing worrying parallels with similar crises in the Arab world.

TOP 20 CONSUMERS

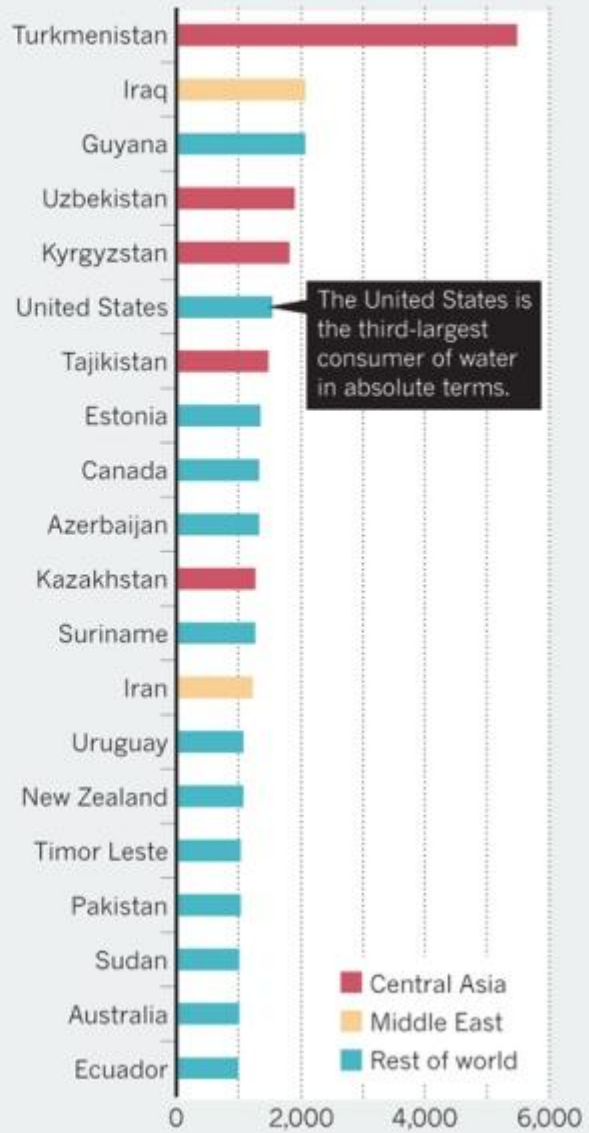
Central Asian republics use disproportionately large quantities of water relative to the size of their economies and populations. Most water goes to irrigate crops grown in poor-quality soils.

Water use (m³) per US\$ of GDP*



*Gross domestic product

Water use (m³) per capita



The United States is the third-largest consumer of water in absolute terms.

■ Central Asia
■ Middle East
■ Rest of world

The first step is to recognize that the origin of central Asia's water problems is in excessive water demand. Fixing the problem will mean developing regional industries that are less water intensive and more profitable than agriculture, by tapping human potential rather than natural resources. Unless the region's economy can be put on a more sustainable footing, the stability and security of central Asia is in danger.

Shortage myth

Two fallacies stymie debate about water in central Asia. The first is that the region is short of water. The landscape looks dry and rivers run empty. Many analyses in the past few years^{3, 5} have thus recommended water-conservation measures, assuming that incremental policy changes are all that can be delivered. In fact, these countries have plenty of water relative to their populations. The annual availabilities of fresh water per capita for the Amu Darya (2,087 cubic metres) and the Syr Darya (1,744 m³) river basins⁶ are well above the United Nations definitions of water shortages⁷: 1,000 m³ per capita constitutes a chronic shortage, and 1,700 m³ a moderate shortage. By comparison, Denmark has 1,128 m³ of water per capita, Germany 1,878 m³ and the United Kingdom 2,465 m³ (ref. 4).

The second fallacy is that the solution is agricultural. Most analysts propose that water should be used more efficiently on farms because it is wasted in growing low-return crops on dry lands unsuitable for agricultural use. Turkmenistan's dry climate and poor soils mean that producing a tonne of wheat takes 2,000–4,000 m³ of irrigation water, whereas in nearby northern Kazakhstan adequate rainfall and conditions mean that no irrigation is needed. Even as its land became parched, Turkmenistan's wheat yield increased ninefold between 1992 and 2007.

But the big fish swims elsewhere: the agricultural share of gross domestic product (GDP) in central Asia has almost halved since the disintegration of the Soviet Union⁴. Instead, economic growth is dominated by the oil and gas industry and by urban expansion. Already, more than half of the region's population is urban and that proportion is rising.

Despite this, central Asian economies continue to focus on primary industries such as agriculture and the extraction of fossil fuels. The economic return on water is lower in central Asia than anywhere else on the planet. Turkmenistan uses nearly 3 times more water than India to produce one GDP dollar, 4 times more than Egypt, 14 times more than China and 43 times more than Spain⁴.



Rising tension

The resulting problems are greater than just stagnant economies. Disputes (see 'Troubled waters') between nations have arisen around access to shared water bodies in the Fergana Valley in the Syr Darya river basin, in the Zarafshon river basin, and in Amu Darya — most notably concerning the Nurek dam and Turkmen–Uzbek rivalries on water appropriation.

These tensions are stoked by absurd projects such as the Golden Age Lake (Altyn Asyr) in the Karakum Desert^{8,9}. Projected to cover almost half the area of the Great Salt Lake in Utah, the synthetic lake will be about six times its volume. Since 2000, Turkmenistan has been constructing it, claiming it will increase agricultural production and offer a “symbol of revival of the Turkmen land”, as former president Saparmurat Niyazov (known as Turkmenbashi) put it⁹.

Water for the lake will be drawn from the Amu Darya river through two canals, which are being cut across about 3,200 km of desert^{8,9}. Although it is unclear whether that much water can ever be sourced from the river, it is obvious that downstream, Uzbekistan will not accept those diversions and is ready to defend its water share with arms if necessary. The already serious soil-salinization problems of Turkmenistan and Uzbekistan will be greatly worsened if the project is completed.

Like most other parts of the former Soviet Union, central Asian states suffer authoritarian rule and political fragility. Soaring unemployment is leading to a mass emigration of educated people. Current figures estimate that up to one-third of working-age Tajiks are employed abroad. Ethnic, political and religious diversity and difficulties with boundary demarcation fuel nationalism. Internal hostilities, as in the Caucasus, Moldova and eastern Ukraine, are a threat. A full-scale regional conflict, regardless of the rise of radical religious groups, is not out of the question.

Central Asia's water crisis echoes that in the Middle East and North Africa, where political, economic and environmental issues are also intertwined. In Arab countries such as Syria, Yemen and Tunisia, water is scarce and used for low-value purposes, generating little income or investment¹⁰. Urban populations are fast-growing but ill-served by development policies focused on traditional rural and primary industries. Political and professional inertia makes change difficult.

Three main differences may make the situation in the former Soviet republics worse than in the Middle East. First, investments in the central Asian water sector are even less productive and more conflict-prone than in Arab countries. Second, water is more abundant in central Asia but environmental disasters have been more severe there than in Arab countries. Third, Arab cities absorb immigrants more successfully and grow faster than those in central Asia, where skilled workers tend to emigrate to countries outside the region, notably Russia.

The central Asian countries must find joint interests and competitive advantages to build a new regional economy, with wise water use at its heart. These countries could have a much more conscious role in world politics and in the global economy by looking at their complementary strengths and merging their markets.

Human potential

The human resources of central Asia are relatively untapped. The republics have essentially full adult literacy and well over 90% of adults have secondary education⁸. The nations are in a favourable geographical position between diverse markets, including China, Russia, the Middle East and Europe.

Different national strengths should be exploited: Turkmenistan is rich in oil, Tajikistan and Kyrgyzstan in hydropower, for instance. Urban economies, services, manufacturing and knowledge-intensive industries should be boosted by governance reforms.

Realizing human potential would require policies to attract investments, maintain and enhance high standards of education, help industries to grow, and empower a bigger share of the population to contribute to political decision-making. Inertia may be the real bottleneck.

Experience from elsewhere abounds. Information and communication technology brings in more than one-quarter of India's export earnings; China, South Korea, Vietnam and some other ex-Soviet states — notably Estonia — have also created knowledge-based industries almost from scratch. Such industries provide intellectually attractive, high-income jobs for the younger generation and put little strain on water resources and the environment.

International policy-makers and the water sector must refocus and look much more broadly at water's role in the region's political and economic development. That wider perspective should guide the next round of water-resources assessments, as well as top-level international policy meetings such as the 7th World Water Forum in Daegu, South Korea, in April 2015.

The alternative could be much worse: more iron wreckage on the drylands — this time of military origin.

Nature **514**, 27–29(02 October 2014)

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“Resources: Curb vast water use in central Asia”, 01/10/2014, online at: <http://www.nature.com/news/resources-curb-vast-water-use-in-central-asia-1.16017>

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❖ Neglect not Drought Created Iran's Water Crisis

Water shortage has become a serious crisis in the Islamic Republic in recent years.

The total volume of the water in Tehran province's Lar reservoir dam with total capacity over 960 million cubic meters currently stands at 30 million cubic meters, of that amount only 18 million cubic meters can be used.

Lar is one of the five reservoirs that supply the capital city of Tehran with water. About 35 percent of the total water consumed in the capital comes from the Lar reservoir.

The Latian reservoir, another of Tehran 's water reservoirs is completely dried up and the capital's residents are faced with water shortage.

“Neglect not Drought Created Iran's Water Crisis”, 02/10/2014, online at: <http://en.iranwire.com/speaking-of-iran/5965/>

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❖ Iran prays for rain amid acute water shortage

The ritual chants of "Death to America!" have not gone away, but at Friday services across Iran worshipers sought divine intervention in a matter more climatological than ideological.

The faithful prayed for rain, or at least were urged to do so.

"For God's sake, let's go to God's door and ask his Almighty to send water," an animated Ayatollah Kazem Sedighi implored worshipers on the campus of Tehran University, the traditional venue of nationally televised Friday prayers.

Occasionally breaking into sobs, the ayatollah exhorted members of the congregation to make their pleas both to the Creator and to Imam Hussein, a revered figure in Shiite Muslim tradition. The water shortages afflicting Iran, Sedighi suggested, could be a heavenly nudge aimed at getting sluggish believers to pay a little more attention to matters of the spirit.

"God sometimes sends ordeals to make his followers seek him out by praying and avoiding sin," he told worshipers, adding his own view that the divine reprimand, if that's what it is, stretched the limits of fair play. "Iran has dedicated lots of martyrs to God and does not deserve a shortage of water," Sedighi asserted.

Concern is mounting about dwindling water supplies across Iran, from the densely populated, smog-ridden capital and its parched suburbs to provincial towns and cities to far-flung corners of the nation, much of which is desert. Lakes and rivers have been drying up, reservoirs are at historic lows and water supplies have been cut in some areas. The annual snowmelt from the mountains is on the decline.

On the streets here, people grumble about cuts in water service. Many buildings have tanks on the roofs to collect rainwater. Unfortunately, it hasn't rained in months. Bottled water is available, but many Iranians have little excess income for purchasing it. Most Iranians rely on tap water for both drinking and washing.

"On some days of the week, our tap water is cut for seven or eight hours," said Akbar Aziz, 40, a printing-house employee who lives in the capital's working-class Khorasan district. "We are consuming as little as possible," said Aziz, a father with young daughters. "We shower only two times a week. So we are not responsible for the water shortages."

Experts cite a range of factors: a prolonged drought, climate change and outdated agricultural and household practices that tend to squander the precious resource. Iran regularly ranks near the bottom in global surveys of how nations manage water resources, officials say.

The summer was a sweltering one in the capital, a trend that has continued deep into September and the early fall. The water problem is not likely to go away anytime soon.

"In the short term there is really no solution," professor B. Alijani, a lecturer on climate change and geography, said in an interview. "But Iranians need to learn to economize water and avoid wasting it both at home and in the fields."

He noted, for instance, that farmers using irrigation maintain water-gorging orchards of apple and cherry trees in arid areas such as near Lake Urmia, a once-grand body of saltwater in northwest Iran that is now dying, its shoreline receding annually. Aquifers that feed the lake are running dry.

"Why on earth are we cultivating apples and cherries near the Urmia salt lake?" Alijani asked.

In a dispatch this month, the semiofficial Fars News Agency quoted a grim assessment from Eshaq Jahangiri, Iran's first vice president, after he completed a tour of water treatment facilities and reservoirs in the capital. He and others have embarked on a campaign to raise awareness.

"Tehran's dams have water for only a few more days, and this means that people must take serious measures," the vice president said. "Those who use water beyond normal amounts are hurting those who abide by appropriate levels of consumption."

"Iran prays for rain amid acute water shortage", 27/09/2014, online at: <http://www.latimes.com/world/middleeast/la-fg-iran-water-20140928-story.html>

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❖ **Report: Water rates can be reduced 8%**

The Belinkov Report says Mekorot is inefficient, wasteful, and causes high water rates for consumers.

The excessively high profits recorded by Mekorot National Water Company, the heavy and exaggerated costs on which its calculations are based, and the ongoing inefficiency in its conduct as a water monopoly are causing exorbitant water rates for consumers and waste of resources, among other things, while Mekorot is repeatedly demanding water rate hikes for all consumers. These findings were reported by the consultant committee for long-term economic regulation for the water sector, headed by chairman and former Ministry of the Interior director general and Ministry of Finance budget director Ram Belinkov. Among other things, Belinkov is currently also chairman of Israel Ports Development & Assets Company Ltd.

The full report, including short and long-term regulatory proposals and legislative amendments, was presented two weeks ago to Water Authority Director Alexander Kushnir, and subsequently to members of the Water Council, Minister of National Infrastructures, Energy, and Water Resources Silvan Shalom, and Minister of Finance Yair Lapid. The ministerial committee states that if all the recommendations are adopted, water rates can be expected to fall by 7-8%.

As soon as the report was presented, and actually even before, when Mekorot management understood/suspected the direction of the questions asked by the committee members, Mekorot's management and workers committee began to exert heavy pressure on the minister's offices and members of the Israel Water Authority Council, the agency responsible for water policy according to the Water Law. Mekorot and its officials warned about the risk of a downgrade in its credit rating, although the report clearly addresses this point, but most of its pressure is political, concerning layoffs and a general strike in the water sector with the support of the strong labor unions at

government companies and agencies, such as **Israel Electric Corporation** (IEC) (TASE: **ELEC.B22**), Israel Ports Authority, Israel Airports Authority, civil services unions, and possibly other unions.

Mekorot said in response, "Mekorot is one of the world's leading and most efficient companies in its field. Mekorot has been undergoing constant streamlining for many years, including the retirement of 500 employees in the past seven years and 30% saving on energy costs. Mekorot is studying the Belinkov Report, and welcomes many of its recommendations, but regrets that a number of substantial matters in its recommendations are liable to have a negative impact on both the company's financial soundness and the water sector. Another ministerial committee, headed by the Ministry of Finance Budget Director and the Ministry of National Infrastructures, Energy, and Water Resources director general, is currently studying streamlining in the water sector, and will also examine the Belinkov Committee recommendations.

"Mekorot presented the ministerial committee with a number of ways for streamlining the water sector - ways that would lead to a cut of over 20% in consumer water rates. We believe that the committee will examine in depth these proposals, which will lead to the right way of cutting costs in Israel's water sector, and will correct some of the professional errors appearing in the Belinkov Report that are liable to cause significant damage to the water sector."

The Public Utilities Authority (Water) said in response, "The report has indeed been signed and delivered to the Public Utilities Authority (Water). In the current stage, members of the Water Council are studying the report and its possible significance and consequences for the water sector. As is known, the Minister of National Infrastructures, Energy, and Water Resources and Finance have established a ministerial team, and it can be assumed that the team members will also study the

report and formulate recommendations to the ministers. After studying the report and assessing its conclusions and recommendations, discussion and examining ways of implementing it will begin."

The Ministry of National Infrastructures, Energy, and Water Resources said, "The Belinkov Report recommendations will be discussed, in addition to other matters, during the discussion of the team for examining the water and sewage sector established by the Ministers of National Infrastructures, Energy, and Water Resources and Finance, a team that is currently doing its work. The team will submit its conclusions and recommendations to the ministers."

"Report: Water rates can be reduced 8%", 01/10/2014, online at: <http://www.globes.co.il/en/article-report-water-rates-can-be-reduced-8-1000975847>

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❖ The dehydration of economic peace

The irony of Rawabi is that everyone, in both Israel and Palestine, seems to want it to happen. Nevertheless, Palestine’s first planned city still lacks a stable water connection, its continued cash flow is threatened and despite their best intentions, interested parties the globe-over cannot bring the project any farther forward. Officials involved in the project say a political power play — part of Netanyahu’s bid to undermine the Palestinian unity government — is the only thing stopping the water from flowing.

“Rawabi,” Amir DeJani says, “is about the future.”

The deputy managing director of Rawabi, DeJani sits behind his desk with a neon construction vest on top of a neatly pressed short-sleeve button down shirt. His two cell phones periodically buzz and ring—not to mention his email notifications, and landline telephone—though he interrupts our conversation only once to offer me coffee and water.

The project, Palestine’s first planned new city, “is about creating hope, building for a better future [with] better schooling, healthcare services, infrastructure, a green city, a modern city focused on creating a more sustainable way of living, focusing on environmental concerns, bridging relations between local and international firms providing professional services to the tenants and residents.”

Rawabi’s future seems rather far away, however. It lacks a stable water connection; its continued cash flow is threatened; and interested parties the globe-over cannot bring the project any farther forward. Rawabi’s tenuous state, perhaps overshadowed by the wars to Palestine’s north, is nevertheless a part of the larger regional puzzle—and threatened by the same factors of instability.

The main hurdle at the moment is moving the project’s first residents into their new homes. [But Rawabi simply doesn’t have enough water](#): the 300 to 500 cubic meters of water a week provided to

Rawabi by the regional Palestinian water authority, the Jerusalem Water Undertaking, is just barely enough to keep construction going, DeJani explained to +972.

The solution they seek is seemingly exceedingly simple: just three kilometers away, in the Palestinian village of Umm Safa', is a connection point belonging to the Israeli national water company, Mekorot. Hooking up in Umm Safa', DeJani says, will provide the city-to-be with 300 cubic meters per day, enough to deliver their first batch of apartments to some 600 residents and begin collecting payments from buyers, thereby ensuring the project's cash flow and staving off any work stoppages or layoffs.

A new city, an old microcosm

Though Rawabi is built on the West Bank's second largest contiguous strip of Area A, under Palestinian civil and security control, the 1.2 kilometers corridor separating Rawabi's water hookup from Mekorot's is entirely in Area C, under full Israeli civil and security control—thus placing Rawabi's future in the hands of Israeli politicians and bureaucrats at a time when talks of statehood are muffled by noise surrounding Israel-Palestine this summer: Collapsed negotiations, wars, kidnappings, mutual accusations of war crimes, settlement growth, and clashes in East Jerusalem.

None of this is new, the cynic will tell you. Operations in Gaza, for example, are referred to in Israeli political discourse as “mowing the grass”—periodically cutting down Hamas and other groups' military capacity without fundamentally altering the political status quo in the coastal strip. Negotiations, too, seem to come and go, leaving in their wake nothing but pricey photo opportunities. The verbal jousting by Abbas and Netanyahu on display this week at the UN General Assembly? Par for the course.

True believers in the peace process, however, identify a shift in the basic tenor of Israeli-Palestinian relations—a climate characterized by mutual distrust where neither side believes the other is committed to a two-state outcome.

“There is a context now in which you don’t get something unless you give something,” said Ambassador Dennis Ross who served as U.S. President Clinton’s Middle East envoy from 1993-2001, and most recently in the Obama administration as a special assistant to the president and senior director of the National Security Council for the central region (Middle East, the Persian Gulf, Afghanistan, Pakistan and South Asia). “That has not always been the case.”

Rawabi’s challenge – and future – stands as a microcosm of this political climate.

Developers see Rawabi as a revolutionary component of Palestine’s urban infrastructure, adding a new economic and cultural hub to the string of cities that run along Israel’s Route 60—Al-Khalil (Hebron), Jerusalem, Ramallah, Jenin and Nablus. In a future Palestinian state, Route 60 may be for Palestine what I-95 is to the eastern United States.

There has been a construction boom since the signing of the Oslo Accords, explained Ahmed Nasser, a salesman at [Al-Reehan](#), a new “neighborhood” of Ramallah five kilometers north of the city run by the Amaar Real Estate Group, a subsidiary of the Palestine Investment Fund. Unlike Al-Reehan, Rawabi will exist as a standalone city with its own municipal government, schools, hospitals and houses of worship.

“The economic drive is absolutely critical,” explained DeJani who, prior to joining the Rawabi project worked for USAID in Tel Aviv. “We are not only creating employment opportunities in the construction industry but we are building a capacity by giving opportunities to Palestinian architects, planners, engineers, environmentalist water management waste experts...to contribute effectively to the wellbeing and future sustainability of this city.”

A sprawling complex of white stone buildings—it uses only stone cultivated in their quarry, and cut at a stone cutting factory on site—Rawabi resembles such larger Jewish settlements as Modi'in. Twenty-five kilometers from Nablus in the north and nine kilometers from Ramallah to the south, Rawabi is set in the heart of the Judean Hills. A look from any of Rawabi's vistas reveals the true meaning of the cliché "God's Country." Rolling hills of lush green stretch out in every direction and on a clear day the Mediterranean coastline is in full view. A resident of the settlement next-door, Ateret, told +972 that during Operation Protective Edge, he could see, from a safe distance, the Iron Dome's interceptions of rockets from the Gaza Strip. "It was simply beautiful," he said.

Economic peace or entrepreneurial state building

The project, conceived by Bashar Masri, a Nablus-born Palestinian-American businessman, and funded jointly by the Qatari Diar Group, is meant to show that Palestinians can, and should "push ahead despite the occupation," Masri told [Foreign Policy Magazine](#) earlier this year. "The day after independence we must have something to show the international community."

Though Rawabi weathered the political storm surrounding the Israeli-Palestinian conflict in its first four years—two wars in Gaza and an aborted peace process—it is, at the moment, as vulnerable to the political vicissitudes in Israel-Palestine as any aspect of the conflict.

That shouldn't be a problem, though. After all, Israeli Prime Minister Benjamin Netanyahu, whose 2009 election platform was based on a theory called "economic peace," leads Israel's current ring-wing coalition. Proponents of this theory see political negotiations as a separate issue from market integration, which, they argue, could have a more transformative effect on Palestinians anyway.

Rawabi is a poster child for economic peace. Funded by private individuals, it has created thousands of jobs for construction workers, marketers, engineers and consultants. Four banks maintain offices in Rawabi's sales center, where buyers can finance their homes with access to cut-rate mortgages

made possible by [a \\$313 million loan](#) made by the Overseas Private Investment Corporation (OPIC) to the Palestinian National Authority. When completed, Rawabi will possess an tech hub that, in addition to providing outsourcing opportunities for multinational technology companies, will be home to [Bader](#), a tech incubator that will partner local entrepreneurs with Massar International, Masri's holding company.

An official in the Israeli Prime Minister's Office told +972 that as a point of policy, the prime minister supports the project. "Development in the PA is a win-win," the official explained. "It's a foundation for stability and ultimately for peace."

Other members of his coalition are placing new conditions on the project demonstrating the power the coalition's most conservative members wield over Bibi's interests in economic peace.

Several weeks ago MK Silvan Shalom (Likud), the Israel's energy and water minister, was quoted by several news outlets as having instructed the Israeli delegation to the joint water commission to approve of Rawabi's water connection only if the Palestinian delegates approve similar improvements to the nearby Jewish settlements of Ofra and Ateret.

This tit-for-tat approach was not the point of the Joint Water Commission (JWC), an Oslo-era working committee that must unanimously approve all water projects – Israeli or Palestinian – in the West Bank. The thinking at the outset of Oslo, Ambassador Ross explained, was that the interim period should be used to deepen ties between Israelis and Palestinians so that down the road they could tackle on the core issues. The JWC was meant to "build a pattern of living together" and "establish a common stake" in a practical, not existential, issue.

The issue itself falls under the purview of the Israeli army's Coordinator of Government Activities in the Territories (COGAT), the body that oversees Israel's military government in the occupied territories.

For its part, COGAT is quick to blame the holdup on Palestinian intransigence.

“Projects haven’t been approved for several years, due to the Palestinians refusal to hold the meetings of the committee,” a COGAT Spokesperson told +972 in an email exchange. “Even though, the Coordinator Of Government Activities In The Territories is trying to find solutions in order to settle the issue.”

This week, however, the Israeli army commander of COGAT, Yoav Mordechai, sat down with Palestinian Prime Minister Rami Hamdallah, according to the Palestinian premier’s office. It was not clear if the issue of Rawabi was raised. A request for clarification from COGAT went unanswered at the time of publication.

No political will

Another veteran of the peace process, Yossi Beilin, a former Labor and Meretz MK whose Beilink Consultancy works to connect foreign businesses and investors to Israel, finds such an explanation to be masking the true roadblock: Prime Minister Netanyahu himself.

“The prime minister apparently is not so enthusiastic about [Rawabi],” said Beilin. “He isn’t against it enough to torpedo it, but he is not fighting for [its success].”

Beilin calls Bibi’s economic peace theory “nonsense” and were it even true, would nevertheless be slave to what Beilin describes as Netanyahu’s character. “His general attitude in life is that you can [never] give [something] for nothing: if they get water, you should allow this—you are a sucker if you give them something for nothing.”

The leadership at Rawabi finds Netanyahu’s enthusiasm for economic peace dubious.

“Mr. Masri has the feeling that the water denial has to due more with the so-called ‘sanctions’ imposed on the PA three or four months ago as a result of the [Palestinian] unity government,”

explained Dov Weissglass, who served as an adviser to Prime Minister Ariel Sharon and works as Rawabi's lawyer on all matters related to Israel. In Masri's view, "it is not necessarily a purely bureaucratic issue related to the committee," said Mr. Weissglas. "[And] in the absence of another explanation, this is the only conclusion that anyone should reach in the given circumstances."

Many Palestinians are wary of this project, a point raised by a recent [Al Monitor](#) article. Moreover, Rawabi's is just one of hundreds of Palestinian water infrastructure projects currently under consideration of the JWC, which has not met in four years. Nevertheless, foreign governments are taking an interest in this project's success.

A United States Congressional staffer told +972 that toward the end of August, Congressman Eliot Engel (D-NY), the ranking minority member of the House Foreign Affairs Committee communicated to the "highest levels of the Israeli government [his] wish to see the project completed." This message was conveyed on the heels of a meeting between Congressman Engel, U.S. diplomats and Masri, in which the developer explained that if the apartments are not delivered that the Qatari Diar Group would withdraw from the project.

An exercise in soft power

Joseph LeBaron, former U.S. Ambassador to Qatar and Vice Chairman of the Daruna Real Estate Development Company in Qatar told +972, "[Rawabi is] evidence of the way that this kind of investment – not money per-se but investment—is an element of Qatar's foreign policy and an important one."

"The misconception is that Qataris only deal with Hamas—but they deal with everyone," Michael Stephens, a scholar at UK think tank Royal United Services Institution (RUSI), explained to +972. Indeed, while Qatar provides material and political support to Hamas, Mahmoud Abbas and the Qatari royal family nevertheless maintain close and strong ties, according to Stephens. This isn't the

first major infrastructure investment the Qataris have made in Israel-Palestine: the Qatar Foundation, in a joint project with the Israeli government, funded “Doha Stadium” in Sakhnin, a Palestinian city of 25,000 inside Israel proper.

Rawabi was likely not a carefully calculated political decision meant to deepen its involvement in the political process in Israel-Palestine, according to LeBaron. Stephens, however, sees a political benefit to the emirate, which this summer was courted by U.S. Secretary of State John Kerry as a mediator for a ceasefire between Israel and Hamas.

“Real estate investments tie into larger notions of Qatari soft power,” Stephens said. Investing in a project like Rawabi, he explained, is about regional legitimacy, and the need for any aspiring regional power to be a leader in the Palestine issue.

The Qataris’ reconsidering their role in funding this project, then, may suggest a fear in the viability of non-ideological investments in Palestine.

A Western diplomat who deals with economic development issues in the Palestinian territories said, “The failure of Rawabi would be the failure of any future large scale investment [in the West Bank], at least in the next five to 10 years.” Investors with an eye on Palestine would see how even a large-scale project, with broad international support, can get tangled and defeated in the political process. In such circumstances, they would be rightfully skittish, according to this diplomat.

In Weissglass’ view, more foreign pressure is needed. “I’m not aware of any communication [between U.S. and Israeli officials],” said Weissglass, “but if such a simple problem has not been solved yet then it indicates that the communication was very floppy.”

While Israel-Palestine may have drawn high-level American interest during Israel’s most recent operation in Gaza, the American-led airstrikes against ISIS in Iraq and Syria makes Weissglass’ solution a near impossibility.

“I would like to see Rawabi worked out, and I think that its time that it should be done,” said Ambassador Ross. Nevertheless, “There’s a certain amount of bandwidth [and] you can see where the president is consumed right now,” explained Ambassador Ross. “To think that this will get high level attention—it doesn’t deal with what I call the bandwidth reality.”

“The dehydration of economic peace”, 02/10/2014, online at: <http://972mag.com/the-dehydration-of-economic-peace/97301/>

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❖ **Water Authority, World Bank Sign \$ 11.7m Agreement on Water Resources Reclamation**

RAMALLAH, October 1, 2014 (WAFA) – The Palestinian Water Authority signed on Wednesday a US\$ 11.7 million agreement with the World Bank with an aim to repair the damages incurred by the water sector during the recent Israeli aggression on Gaza.

Under the new agreement, \$3 million will be disbursed to extend an already signed agreement on water and sanitary services improvement. The remainder, \$8.7 million, will be allocated to infrastructural development, involving small desalination plants, water and sewage pumping stations and building water tanks to meet the needs of Gazans. The agreement is set to take effect at the beginning of next November.

“Water Authority, World Bank Sign \$ 11.7m Agreement on Water Resources Reclamation”, 01/10/2014, online at:
<http://english.wafa.ps/index.php?action=detail&id=26688>

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❖ Gaza's water shortage after a month of calm

The recent Israeli war on the Gaza Strip exacerbated the water crisis in the area as a result of the power outages, and the destruction of wells and infrastructure following the shelling.

The only power plant in the Strip stopped working after Israeli aircrafts targeted its fuel tank, leaving Gaza dependent on energy it imports from Israel and Egypt. This has led to water shortages in most areas.

In remarks to the Anadolu news agency, Munther Shiblaq, director of the Coastal Municipalities Water Utility (CMWU) which is responsible for providing water to the residents of the Strip, said there are many homes which are not receiving water supplies due to the long power outages.

Shiblaq explained: "The power outages in the Gaza Strip will cause an environmental and water catastrophe." He urged the international community "to intervene urgently to resolve the crisis once and for all".

He said the Israeli war aggravated the water and sanitation crisis in Gaza, pointing out that the damage to the sector amounted to \$34 million following the war.

During the Israeli assault on the Gaza Strip which it called "Operation Protective Edge", the occupation's forces targeting 11 water reservoirs and 26 wells, in addition to the three desalination plants and dozens of sewer lines.

"During and after the war, we were forced to discharge wastewater directly into the sea without treatment. What will happen in the Strip is a major health catastrophe," Shiblaq warned.

He said 95 per cent of the groundwater in the Gaza Strip is undrinkable, in addition to the presence of a large deficit in the quantities found, indicating that the sector has no water sources, and that international support is needed for projects to build desalination plants after the Israeli war.

According to the study published by CMWU in December 2013, the Gaza Strip suffers from a water crisis which gets quantitatively and qualitatively more severely every year. The water levels in the wells have dropped to more than 12 metres below sea level.

Over the past seven years, since the Israeli siege on the Strip, the approximately 1.9 million residents of Gaza have lived according to a schedule of daily power cuts which last eight-hours. However, since the Israeli assault on July 7, there have been power cuts of more than 12 hours every day.

The Gaza Strip requires 360 megawatts of power to meet the needs of its population; however it only has approximately 200 megawatts.

On July 7, Israel launched a war on Gaza that lasted 51 days and killed 2,148 Palestinians and injured more than 11,000 others, according to Palestinian medical sources. The war destroyed approximately 9,000 houses completely and 8,000 partially, according to the Ministry of Public Works and Housing. Some 67 Israeli soldiers were killed during the Israeli aggression, along with four Israeli civilians and one foreign worker, according to data from an Israeli official. Some 2,522 Israelis, including 740 soldiers, received treatment during the war, according to the Soroka Medical Centre and the Barzilai Medical Centre.

The two sides reached a long-term ceasefire on August 26.

Since the Hamas movement, which Israel considers a "terrorist organisation", won the Palestinian legislative elections in January 2006, Israel has imposing a land and sea blockade on Gaza, tightened it after the group took control of the sector in June 2007. The siege continued despite Hamas relinquishing control following the formation of the Palestinian unity government in June of this year.

"Gaza's water shortage after a month of calm", 02/10/2014, online at: <https://www.middleeastmonitor.com/news/middle-east/14477-gazas-water-shortage-after-a-month-of-calm>

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❖ Making the desert grow

Agriculture was forever changed in the late 1950s when three monumental issues collided. First, the scarcity of rubber during World War II stimulated rapid development of plastics.

Second, Holocaust survivors streamed out of Europe and Russia to found a homeland in Israel.

Third the desert of Palestine had to be made fertile again to support a rapidly growing population of refugees. It was in the midst of this whirlwind that Ben Gurion challenged his people to “make the desert bloom.”

A Polish born Jewish engineer and immigrant, Simcha Blass working at the epicenter of Israeli hydrology sought to help his people grow crops in the desert where water was in extremely short supply. It was he who purchased the pipes used in London to fight fires during the Blitz and shipped them to Israel to provide water to formerly dry lands. This pipeline allowed 11 new Jewish settlements in the Negev on that historic Yom Kippur night in 1946.

Blass was well aware of the development of polypropylene and polyethylene between 1930 and 1940. American scientists had rapidly put these plastics into use for the war effort and Blass studied these new applications. Armed with the latest science, Blass put his mind to solving the agricultural irrigation problem in Israel.

His story of the birth of a new form of irrigation reads much like a Biblical parable with many different versions but in all the result was the same.

While Blass was the primary hydraulic engineer in Palestine he spent much time in the desert. One day he sat beneath a large fig tree to eat lunch. A pipe coupler nearby was perpetually dripping, and was the only sign of moisture to this tree. The engineer could not understand how such a large tree could survive with so little moisture, so he dug a hole to determine exactly how the drops of moisture

could feed such a large plant. His discovery was a deep an onion shaped wet zone underground that remained perennially moist because there was no surface evaporation. The fig had tailored its root system to feed off this single column of moisture in the ground, growing just as productive as other fig trees under flood irrigation.

This epiphany drove Simcha to recreate such a scenario with a new kind of water conservative irrigation.

The solution had to be affordable and easily manufactured to meet the growing demand of the Negev kibbutzim. Using new plastics, he worked to solve problems and exploit hydrology of flow rates, friction loss and pressure changes. By 1960 Blass had a prototype emitter about the size of a thimble that compensated for pressure delivering water at a static rate.

The story goes that there was much skepticism because agriculturists who were trained on the large spreading root zone mentality simply did not trust such a solution. They could not think outside the box.

Blass approached each kibbutz with his prototype but most were naturally unwilling to invest in such a curious new irrigation product.

Finally Hatzerim kibbutz, a collective desert farm was willing to give it a try. The new emitters were such a success Blass patented his new products. In 1965 he established Netafim (Hebrew for “drops of water”) Irrigation Company (Netafim.com) giving the kibbutz 80 percent ownership and himself just 20 percent to better support the emerging nation.

Today Netafim is a world wide presence wherever there is a need for solving problems of aridity and desertification.

Every drip irrigation system in our desert can be traced back to Simcha Blass and his pioneering work in Israel. Necessity became the foundation for many innovations in this unusual style of water

delivery. His discoveries have transformed arid regions around the world feeding millions where drought and famine have been historic.

This tale demonstrates how some of the darkest periods in human history have given birth to great accomplishments. The second miracle is a land of milk and honey that declined over millennia to an eroded, infertile, dry desert, then was brought back to productivity again by a small bit of plastic and the infinite creativity of the human spirit.

“Making the desert grow”, 03/10/2014, online at: <http://www.desertsun.com/story/life/home-garden/maureen-gilmer/2014/10/03/maureen-gilmer-israel/16678567/>

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❖ **Emergency Appeal for Abasan Municipality, Gaza Water and Sanitation Needs**

The tragic events of this past month have led to a horrific loss of life and destruction throughout parts of Gaza and southern Israel.

EcoPeace/Friends of the Earth Middle East (FoEME) staff and communities have been directly affected at all levels including two communities that are part of our Good Water Neighbours project, the Eshkol Regional Council in Israel and Abasan Al Kabireh municipality in Gaza. While the Israeli government has the resources to respond to the financial needs of the Eshkol community, in Gaza the Mayor of Abasan Al Kabireh has few resources and thus has turned directly to FoEME to ask for immediate assistance.

Current estimates, by the Mayor, include estimates an urgent need of \$10,000 per month to help provide his community of 21,000 people with clean drinking water. In response to the urgent request from the Mayor of Abassan, EcoPeace/FoEME launched an emergency appeal in August to help resupply clean water to Abassan, while concurrently preventing the outbreak of disease. The municipality and its population's needs are urgent and unfortunately will remain so for several months to come until international development agencies begin recovery efforts throughout Gaza.

We are proud to report though, that as of today, EcoPeace/FoEME has raised enough funds to support the municipality's water needs for three months. Water containers and water, such as the one above, have been imported into Abassan for the resident's use. The next steps include rehabilitation of an old well, repair upon the small desalinization plant, and additional water containers and water brought into Abasan.

FoEME and the people of Abasan are still asking for your individual support in this time of need as we don't know how long the water crisis and lack of proper sanitation will continue.

We thank those who have contributed so far, additional donations can be made via FoEME's PayPal account by going to our donation page.

“Emergency Appeal for Abasan Municipality, Gaza Water and Sanitation Needs”, FOEME, 02/10/2014, online at: <http://mideastenvironment.apps01.yorku.ca/2014/10/emergency-appeal-for-abasan-municipality-gaza-water-and-sanitation-needs-foeme/>

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❖ Water production gap "unsustainable"

Annual water consumption in the GCC is 26.5 billion cubic metres (Bcm) yet total production is only 7.1 Bcm/y, according to a recent White Paper by industry analysts Frost & Sullivan.

With groundwater supplies almost exhausted in some countries, there is an urgent need for new water supply projects to redress the 19.4 Bcm/y deficit.

Leaders in the region's water and wastewater industry will be discussing how to best meet this gap at the upcoming Waterworld Middle East Conference and Exhibition, to be held in Abu Dhabi from 12-14 October.

“The recognised need to address the gap has attracted more than 100 water technology companies, service providers and equipment manufacturers to the region,” said Tom Freyberg, conference director for WaterWorld Middle East.

“It is the goal of our conference to bring technology leaders together with decision makers to enhance dialogue around best practices for asset management and wastewater management to address eminent water shortage challenges.”

To share advice and experience on delivering successful water projects, some of the region's top consultants and service providers will take part in a panel debate on “Delivering Water Projects”, to take place on 13 October.

The panel features: Ghassan Ejje, senior vice president, BISEX, UAE; Dr Andrea Lovato, executive director – business development, ACWA Power; Xavier Joseph, CEO, Veolia, UAE; Robert Bryniak, CEO, Golden Sands Management Consulting; and, Jim Southworth, , general manager, Jim Southworth Consulting, UAE.

Leading projects that have recently come online to help address the increasing need for water in the region will also be reviewed during the conference.

For example, recently Spain's Acciona Agua won a four-year, \$40mn contract to provide operation and maintenance of the water supply network in New Cairo.

During the conference, Jose Diaz-Caneja, general director, Acciona Agua, will elaborate on his experience associated with rehabilitating Egypt's drinking water and wastewater infrastructure.

In Oman, the local Majis Industrial Services Company has sought bids for a contract to provide project management services to design and construct a second treated sewage effluent (TSE) plant at the Sohar Industrial Port Area in Northern Oman.

From Oman, David Harris from the Public Authority for Electricity and Water (PAEW) will be joining Tim Kay from Black & Veatch and John Woodhouse of the Woodhouse partnership, to elaborate on the increasing importance of asset management in any corporate water strategy and the priority that needs to be given towards the implementation of sustainable practices.

Other organisations speaking at WaterWorld Middle East 2014 will include Abu Dhabi Sewerage Services Company (ADSSC), the Regulation and Supervision Bureau (RSB), Abu Dhabi Water and Electricity Authority (ADWEA), CH2M Hill, Doosan Heavy Industries and Construction, and many others.

"The region's own economic success is ironically driving the water shortage that could have the potential to stymie additional growth in the future," said Freyberg.

"The Abu Dhabi Sewerage Services Company's strategic tunnel engineering project (STEP) will deliver additional wastewater collection capacity to help address the demands created by the region's growing population and economy.

"It's a great example of one of the large scale engineering projects currently underway in the region. We encourage all delegates to sign up for the technical tour of the STEP project to see first-hand how Abu Dhabi is future proofing its infrastructure."

The WaterWorld Middle East Conference and Exhibition will run in tandem with POWER-GEN Middle East from 12 to 14 October at Abu Dhabi National Exhibition Centre (ADNEC).

The event will bring together the region's leading plant owners and operators, consultants, utilities, investors and academics, with representatives of over 80 companies from 30 countries.

“Water production gap "unsustainable"”, 29/09/2014, online at: <http://www.utilities-me.com/article-3113-water-production-gap-unsustainable/>

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❖ **Political conflicts worsening Yemen food security: U.N. agency**

(Reuters) - An escalation of political turmoil in [Yemen](#), one of the poorest countries in the world, risks aggravating an already dire food security situation, the [United Nations](#) Food and Agriculture Organization (FAO) said on Monday.

Shi'ite Muslim rebels seized the Yemeni capital Sanaa this month, prompting President Abd-Rabbu Mansour Hadi to warn of a drift towards civil war in a country long riven by deep political, religious and tribal divisions.

One in four Yemenis is undernourished and more than half of Yemen's 25 million people are 'food insecure', that is lacking access to sufficient food for their needs, FAO regional coordinator Ad Spijkers told a news conference in Abu Dhabi.

With a high proportion of the population living off the land and some 90 percent of Yemen's water resources being used in agriculture, people are especially vulnerable when conflicts disrupt farm production, FAO officials said.

"In every effort to improve food security and nutrition you need stability and in [Yemen](#) two thirds of the population depend on agriculture," said Spijkers.

"So if people are displaced and they can't grow food for their own families then there is a very severe situation."

Compounding Yemen's plight, nearly half of its irrigation water goes to growing qat, a narcotic leaf that fetches a high price on local [markets](#), rather than to growing staple crops.

The cash-strapped government has to import 90 percent of the wheat and 100 percent of the rice it needs to feed its people.

This heavy reliance on global food [markets](#), coupled with dwindling foreign exchange as a result of a slump in oil exports, are now both aggravating Yemen's food vulnerability, FAO said.

POLITICAL INSTABILITY

Yemen earned just \$671 million from exporting [crude oil](#) in January-May, down nearly 40 percent from a year earlier, as a result of frequent bombings of its oil and gas pipelines, mostly by disgruntled tribesmen feuding with the state.

The FAO's Yemen representative, Salah Elhajj Hassan, told Reuters by telephone from Sanaa on Monday that Yemen's conflicts were hampering even the most basic aid programs such as distributing agricultural inputs to farmers in rural areas.

"As we speak we are trying to send some assistance to Jawf province but we have a problem doing that because of the severity of the situation there," he said.

As well as the violence in Sanaa, Yemen also faces regular attacks by al Qaeda - most recently on Sunday when a suicide bomber killed at least 15 people - and protests by southern separatists demanding secession from the country.

Instability in Yemen is a worry for the United States and its Gulf Arab allies because of its position next to [Saudi Arabia](#) and shipping lanes which run through the Gulf of Aden.

FAO has been working with international donors to help modernise Yemen's agricultural sector and around 40 projects have been identified in the past two years.

"Some of these projects have seen the light after being selected by various donors but the current situation in Yemen ... is hampering progress on the ground and donors will only add more if they see results," said Sirelkhatim Mohamed, a FAO investment officer working on the issue.

Yemen's National Food Security Strategy, set up as a response to a spike in global food prices in 2008, aimed to cut food insecurity by a third by 2015 and to make 90 percent of the population food secure by 2020.

But the strategy, which included plans to set up a strategic grain reserve, has been severely hampered by the instability plaguing Yemen since street protests ousted former president Al Abdullah Saleh in 2011, a recent FAO report on the country said.

“Political conflicts worsening Yemen food security: U.N. agency”, 29/09/2014, online at:

http://www.reuters.com/article/2014/09/29/us-yemen-crisis-food-idUSKCN0HO1FU20140929?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=c95d396f1c-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-c95d396f1c-250657169

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❖ Ethiopia: Where Did Egypt's "We Are Happy" Stance Come From All of a Sudden?

I wanted to write this piece a long time ago, but events in Gaza caught all my attention and I decided to delay it.

As we all followed the events of the last couples of weeks, the politics of the Nile River has gotten another momentum. Ethiopia, Egypt and Sudan started the tripartite talks all over again after months of being at a standstill. It was all over the media that negotiations of technical expertise among water ministers from Egypt, Sudan and Ethiopia had reached a dead end after all parties refused the proposals set by Egypt to reorganize an international committee to restudy the impact of the ongoing construction of the Grand Ethiopian Renaissance Dam.

After following the third round of negotiations held in Khartoum in June of 2014, Egyptian newspaper Al-monitor reported the main reason behind the standoff. It stated "The dispute between Egypt and Ethiopia during the negotiations is related to two points. First, Ethiopia refused the participation of international experts in the new mechanism put in place to follow up on Ethiopian studies about the consequences of the Renaissance Dam. These studies will be conducted in accordance with the report of the international committee. Second, Ethiopia refused to discuss the document on 'principles of confidence-building' between the countries of the eastern Nile basin -- namely Egypt, Sudan and Ethiopia. Egypt proposed this document to provide guarantees for the downstream countries against any negative effects that may be generated from the construction of the dam." Reports after the failed negotiation in Sudan indicated that a deal on the implementation of recommendations by an expert panel on the Nile River water sharing was not reached during the third round of trilateral meetings between ministers from Egypt, Sudan and Ethiopia.

As we have followed, Ethiopia had rejected both an Egyptian recommendation for the formation of an expert panel with representatives from Cairo, Khartoum and Addis Ababa that would monitor the building of the dam and ensure that the recommendations of an independent expert panel are followed and recommendations called for establishing certain principles guaranteeing the rights of affected states. After this failed negotiation, Ethiopian Water and Energy Minister Alemayehu Tegen stated "The construction of the Renaissance Dam is taking place without any hassles or difficulties. The project will be finalized according to the decided time frame," stressing "the project is not facing technical or funding problems."

It is a well-documented fact that Egypt has been extensively pushing for the necessity of another round of studies before constructing the dam for the last few years. Explaining the Egyptian position on this issue Sherif Eissa, head of the Nile water department at Egypt's foreign ministry and a member of the Egyptian delegation in negotiations with Ethiopia, told Egyptian government affiliated newspaper Al-Ahram that the international committee's report found that additional studies should have been made before construction work began to assess its impact on the environment socio-economic and hydraulic. The official stated "Experts have said that the studies conducted by Ethiopian authorities are Level 1 and that Level 2 studies were needed to show the impact of the dam on downstream countries."

Stating the focus of the negotiation and the interest of Egypt he said "There are many ways to reach a compromise. We will focus during the meetings on the specifications of the dam, the volume of water behind the dam and reservoir and on joint management that guarantees the production of electricity in Ethiopia and the natural flow of water to Egypt."

Those who followed the issue clearly understand that Egypt was following the deep-rooted unjust stand of "historical right" in its foreign policy. This policy had clearly affected the negotiation

process and delayed the agreement to be reached between Nile basin countries. We had been hearing presidential and political leaders speeches including "Our blood substitutes any decrease of the flow of the river waters, even a single drop" for several times on several occasions.

Change of policy?

In the last few decades we have witnessed a radical and unjust policy of Egypt towards the Nile river, which inculcates the "historical right" argument. This policy of Egypt emanated from the 1929 and 1959 unjust treaties' of colonial times. Those unjust and illegal treaties' of Nile River, which was made by Egypt, Sudan and other colonial powers, gave illegal right to Egypt and Sudan. For instance in the 1929 treaty it declared that no activity would be carried out on the Nile that would lessen or reduce the flow of water to Egypt. On top of all that, the agreement also introduced the concepts of "historical rights, acquired rights, and established rights." It stipulated that "no irrigation or power works or measures are to be constructed or taken on the River Nile or its tributaries, or on the lakes from which it flows in so far as all these are in the Sudan or in countries under the British administration, which would entail prejudice to the interests of Egypt."

This accord established Egypt's right to 48 billion cubic meters of water flow, all dry season waters, and veto-power over any upriver water management projects; Sudan was accorded rights to 4 billion cubic meters of water. Available researches indicate that over the entire year, about 86 percent of the Nile's water originates from the Ethiopian Highlands, while the White Nile contributes only 14 percent. During the flood period however, 95 percent of the water originates from Ethiopia and only 5 percent from East Africa. It is really hard to differentiate this derogatory and unfair treaty with that of the expansionist syndromes of colonialism.

It is also all the same in its nature of injustices in the 1959 agreement, which reaffirmed the 'full utilization of the Nile waters between Sudan and Egypt. By this agreement both Egypt and Sudan

were ignoring Ethiopia, which contributes 85 percent of the water to the Nile, and other upper stream countries like Uganda, which contributes the remainder. Surprisingly the 1959 agreement between the two recipients of the water allowed Egypt to receive three times as much water as the Sudan, refers to "full utilization" and "full control of the river" and ignores the other Nile basin countries. The signatories of the 1959 agreement allocated Egypt 55.5 billion cubic meters of water annually while Sudan was allowed 18.5 billion cubic meters. These 79 billion cubic meters represented 99 percent of the calculated average annual river flow. This agreement only leaves 1 percent of the Nile River for the other at least 8 members of the Nile basin countries. One can ask this: can the recipient decide the fate of the river while the significant contributors were ignored from the scene?

In spite of all of the above unjust behaviors of the colonial treaties, Egypt kept pushing to quote these treaties and used it to influence bilateral and multilateral treaties among the upper and lower riparian counties for decades. In most cases the policy of "historical right" gave Egyptian politicians power to threaten the upper river countries for using the water. In 1979 for instance, Egyptian President Anwar Sadat threatened war on violators of what he saw as his country's rights to the Nile waters. In a similar note, by reaffirming the long and deep rooted policy of Egypt regarding the use of the Nile River, the recently toppled president was heard saying "Our blood substitutes any decrease of the flow of the river waters, even a single drop."

Similarly, though the Egyptian and Sudanese governments denied the reports, in 2012, international newspaper reported in a Wikileaks document acquired from Stratfor, the Texas security company, that the Egyptian and Sudanese plan to build an airstrip for bombing a dam in Ethiopia. It shows how much the Egyptian are willing to do anything necessary to protect their rhetoric of "historical right." The same kind of news was also heard in 2014. In April 2014 a few web-based newspapers published that Soyuz-U rocket, made by Russia's Energy Space Corporation, was launched with an Egyptian

satellite as its payload. Based on this unconfirmed news, this Earth observation satellite is reported to be put to use for high-resolution remote sensing. By quoting vice president of Egypt's National Authority for Remote Sensing and Space Sciences, Alaa El-din El-Nahry, Ahram Online wrote that the satellite is intended to track the construction of the Ethiopian hydroelectric dam. It would capture high quality photos of the construction site along with other sources of the Nile. Observer of the issue claimed, "the information would presumably be used to facilitate Egypt's upper hand in the negotiations regarding the construction, use and eventual management of Ethiopia's Blue Nile Dam." This action again shows a policy of mistrust and a win-lose approach that has been being built for decades in Egyptian policy with regards to the Nile River.

After seeing all the above historical background and ongoing current facts about Egypt's stance regarding the use of the Nile River by other riparian countries, one can ask one very critical question. Where does the "we are happy" stance come from all of a sudden? Is it a change of policy from Egypt? Is it a change of policy from Ethiopia? Is it the outcome of the relentless diplomatic efforts of Egypt? Is it simply a time buying strategy of both Egypt and Ethiopia? Is it the outcome of the pressure from international actors? Is it a strategy to sabotage the study of the upcoming trilateral technical committee?

The devil is in the details

Engaging with Egypt through all kinds of diplomatic dialogue is nothing but a good approach. But my worry is that Egypt has invested all its diplomatic channels to gain international support from all over the world for her causes of "historical right" in the last couples of years. The recent agreement between countries to set up an International Panel of Experts could be considered a time winning framework for Egypt, or as a victory for continuous efforts of diplomacy to undermine Ethiopian interest. I am just wondering one thing. What if this international panel of experts comes up with

different kinds of studies? I am still not seeing the reorganizing of this panel since the previous international committee reaffirmed that there is no harm on Egypt.

Arab-ization of Nile... ?

As a one time international relation student and critical observer of the issue, I can anticipate that Egypt is already expecting a winner position from the upcoming trilateral technical committee. As far as my understanding is concerned, after the recent bloody revolution in Egypt to topple the democratically elected president, the recent government, led by one time filed Marshal, has adopted a systematic policy to maintain the old policy of "historical right." I simply call this policy "deceiving." After falling to maintain the promises of bringing democracy to his country, the new president has opted to gain the support for halting the construction of the Ethiopian Renaissance Dam by any means from outside. They have been trying to make the issue of the Nile the quest of all Arab countries. Those who followed the diplomatic battle regarding the Nile River could recall the continuous attempt of Egyptian authorities to "Arab-ize" the cause of the Nile River. There are ample historical writings and literatures that stipulate the modern civilization in the Middle East has a great attachment to the Nile River.

By dismantling Muslim Brotherhood; Egypt has tried to gain the trust of the Gulf countries -- except for Qatar. This move of the General has brought two things for the newly elected government. The first thing is that the general has demolished his threat and by doing so he served the interest of Gulf countries. It is obvious that the royal corrupted officials of the gulf region see the wave of democracy as a threat for their regime. On their part the Gulf leaders expressed their satisfaction toward the change in the political scene of Egypt after the fall of the Brotherhood, Saudi Arabia and the United Arab Emirates rushed to offer financial aid packages to the Egyptian government amounting to USD 10.7 billion in the span of only six months.

The other significant development is that Egypt has become a close ally of Russia. By seeing the recently multi-billion dollar arms deal between Egypt and Russia, the recent surprise visit of Sergei Lavrov, powerful diplomat in the current diplomatic circle of the world, during negotiations between Egypt, Sudan and Ethiopia, and the use of Russian made Soyuz-U rocket, as claimed by some newspapers, to track the construction of the Ethiopian hydroelectric dam, I simply see the shadow hands of gulf countries, especially Saudi Arabia and Russia, in the recent development of the Nile river negotiations.

What makes Egypt happy now?

Surprisingly, unlike previous comments and speeches, recently, after arriving in Addis Ababa, Egyptian Minister Sameh Shoukry expressed that he was happy with the outcome of the tripartite dialogue. In a joint statement he said "We are satisfied with the results of the trilateral, technical committee that recently met in Khartoum."

It seems that the recent round of meetings in Sudan brings new dimensions to the ongoing negotiations. Media outlets are reporting that in the recent tripartite talk in Khartoum, water ministers of Ethiopia, Egypt and Sudan agreed to establish a committee to conduct the studies recommended by the International Panel of Experts. The Tripartite National Committee (TNC) comprising four experts from each country will conduct the studies recommended by the Panel. As far as my understanding is concerned there is a deviation of stand from the Ethiopian side, since we have heard that Ethiopia has already studied the social and environmental impacts of the dam. Egypt has been pushing the establishment of this international panel of experts. Political observers pointed out that Egypt is also leaning towards adopting new policies aimed at resolving its dispute with Ethiopia concerning its Renaissance Dam project. But I beg to differ from the position of some observers that pointed out that Egypt is adopting a new cooperative approach regarding the Nile river because as far

as my understanding is concerned, they can't simply radically change the foundation of their foreign policy all of a sudden.

Dealing with Egypt and Sudan alone will affect the interest of Ethiopia

Maybe I am wrong but my feelings keep telling me that dealing with Egypt and Sudan alone will affect the interest of Ethiopia. As a true supporter and contributor of the Renaissance Dam, I have been following the issue with passion and interest. Ethiopia has done a tremendous job in bringing the upper riparian countries together by creating the Nile River Basin Cooperative Framework Agreement (CFA.) In order to share the Nile waters 'fairly and equitably' between all the riparian countries, Ethiopia, Uganda, Rwanda, Kenya, Tanzania and Burundi signed the Nile River Basin Cooperative Framework Agreement (CFA.) The Agreement stated that the Nile Commission would be established upon the ratification by the legislatures of at least six riparian countries. By using this framework Ethiopia and other upper riparian countries should stand for their right to use their resources. This framework sends a clear message for Egypt to recognize and internalize the hard fact that each state has the right to equitable utilization of its waters in accordance with international law. As far as my understanding is concerned, the best way to handle the Nile issue is that Egypt should start to realize the fact that like all nations, Ethiopia has the right to exploit its natural resources for its own developmental aspirations. It is a just thinking that Ethiopia deserves a fairer apportionment of Nile waters. It is unjust to support a colonial-era treaty that excluded Ethiopia and other riparian countries and granted the lion's share of the Nile waters to Egypt. My final word is that separate negotiation and engagement should not undermine the Nile River Basin Cooperative Framework Agreement (CFA), which I believe is the best and most effective strategy to tackle the unjust stands of Egypt.

Ed.'s Note: Mesued Mustefa is a consultant and part time instructor at New Generation University College (NGUC). He has a Masters Degree in Journalism and Communication and a postgraduate certificate in International Diplomacy. The views expressed in this article do not necessarily reflect the views of The Reporter. He can be reached at

“Ethiopia: Where Did Egypt's "We Are Happy" Stance Come From All of a Sudden?”,27/09/2014, online at: <http://allafrica.com/stories/201409291552.html>

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❖ Modi aims to shake up sanitation with Clean India drive

(Reuters) - His hands protected by torn orange gloves, Dalbira Singh has a grim job scraping waste from train toilets from the tracks at New Delhi's Hazrat Nizamuddin station, a few minutes from Prime Minister Narendra Modi's office.

Like an estimated 1 million other Indians, Singh does the work because he was born into a low caste. His parents did the same work before him.

"This is a disgusting job but no one will give me another. I am destined to be a toilet-cleaning man," Singh said this week, picking up soiled sanitary towels and diapers before wiping the tracks with a cloth soaked in cleaning chemicals.

But Modi, like Mahatma Gandhi, wants to change things so not only those born to a low caste work to keep [India](#) clean.

On Thursday, a holiday for Gandhi's birthday, Modi launched the Swachh Bharat Abhiyan, or Clean [India](#) Mission, to modernize sanitation within five years.

He starting by trying to change attitudes and he set an example by taking a broom and sweeping up rubbish in a Delhi neighborhood occupied by members of the Valmiki caste, whose lot in life is traditionally "manual scavenging", a euphemism for clearing other people's faeces.

"Often we assume the job of cleaning up belongs to safai karmacharis and don't bother to clean," Modi said referring to cleaners.

"Don't we all of have a duty to clean the country?"

To drive home his point, he ordered government workers including his ministers came to work on Thursday to sweep offices and clean toilets.

India's fast-growing towns and cities are littered with rubbish. Most rivers and lakes are polluted with sewage and industrial effluents.

'SOCIETY'S FAILURE'

Education will be vital if Modi is to change age-old attitudes towards hygiene and purity, and he will have to finish Gandhi's bid to free India's "untouchable" low castes.

"Modi will have to deal with society's failure to liberate the Dalits (low caste people) from the demeaning profession if he wants India to be as clean as Singapore," said Pravin Panchal, a researcher at the Environmental Sanitation Institute think-tank.

Less than a third of India's 1.2 billion people have access to sanitation and more than 186,000 children under five die every year from diarrheal diseases caused by unsafe water and poor sanitation, according to the charity WaterAid.

The [United Nations](#) said in May half of India's people defecate outside - putting people at risk of cholera, diarrhea, dysentery, hepatitis A and typhoid.

The resulting diseases and deaths, mostly among the poor, cause major losses. The World Bank in 2006 estimated that India was losing 6.4 percent of gross domestic product annually because of poor sanitation.

Modi wants every home and school to have access to a toilet by 2019, in time for the 150th anniversary of Gandhi's birth.

To be successful, he will have to banish the widespread belief in the countryside that it is unclean to defecate inside and that only Dalits should deal with excrement.

U.S. group Human Rights Watch, in a report in August, documented cases of authorities recruiting people from low castes to clean open defecation grounds. The group found people were often coerced into do the work with threats of reprisals.

The practice is most common in small-town India, where people from castes still considered "untouchable" clean waste from toilets which do not have modern flush systems.

Caste-based discrimination was banned in India in 1955, but Dalits face prejudice in every sector from education to employment.

In just one example this week, the Dalit chief minister of Bihar state, Jitan Ram Manjhi, said he was told a temple in the state was "purified" after he visited it last month.

“Modi aims to shake up sanitation with Clean India drive”, 02/10/2014, online at:
http://www.reuters.com/article/2014/10/02/us-india-modi-clean-idUSKCN0HR0PH20141002?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=4d720efb2a-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-4d720efb2a-250657169

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❖ **Slash phosphorus flowing into Lake Erie, Great Lakes Commission says**

The Great Lakes Commission wants to slash the amount of phosphorus flowing into Lake Erie, the source of toxic algae outbreaks and the reason the city of Toledo lost its drinking water for two days this past summer.

The commission, appointed by the region's governors and legislatures to provide coordinated economic and environmental policies, said this week that it is seeking a 40% reduction of the lake's annual load of phosphorus, a powerful nutrient that is fueling algae breaks on the smallest but most fish-filled Great Lake.

That is the amount already targeted by the International Joint Commission, which oversees U.S. and Canadian boundary waters issues.

Phosphorus is flowing into Lake Erie from city sewage plants, industries and suburban lawns and streets, but the largest single source is by far runoff from farm fields.

Lake Erie and the other Great Lakes suffered from algae outbreaks in the 1960s and 1970s, but the federal Clean Water Act largely solved that problem by the mid-1980s by restricting the amount of phosphorus cities and industries could discharge.

That landmark water law, however, was not designed to address agriculture runoff.

Efforts to control agricultural pollution sources have so far been largely dependent on voluntary cooperation from farmers, and contingent on government funds to pay them to take measures to stanch the flow of runoff from their fields.

It has not been cheap — the Great Lakes Commission noted that billions of dollars have been pumped into such programs in recent years, but the problem appears to be getting worse, as evidenced by the temporary loss in August of a public water supply for nearly half a million people.

The Great Lakes Commission says it's time to re-evaluate those voluntary programs.

"The next step is to examine and refine existing regulatory and non-regulatory programs and design new approaches, where necessary, to meet the load reduction targets," states a news release issued Tuesday by the commission.

Commissioner Jim Zehringer, director of the Ohio Department of Natural Resources, said, "We need to make sure that those programs are sustainable and that they are targeted at the most effective practices on the highest priority watersheds."

The commission includes a number of prominent government officials. It can focus attention on the issue, but phosphorus reductions could only be forced by state government or the federal government.

Toxic algae and other noxious algae outbreaks have been a problem in pockets across the Great Lakes region for years, but the Toledo crisis this summer was a landmark moment, the commissioners said.

"When the sustainability of our safe drinking water is threatened, the matters of protecting water quality take on a new urgency," said Kelly Burch, chairman of the commission, and executive director of oil and gas operations for the Pennsylvania Department of Environmental Protection.

"Slash phosphorus flowing into Lake Erie, Great Lakes Commission says", 01/10/2014, online at:
http://www.jsonline.com/news/commission-slash-phosphorus-flowing-into-lake-erie-b99362882z1-277765141.html?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=85e6706bde-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-85e6706bde-250657169

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❖ **Brazil's water regulator kicks off São Paulo river usage debate**

Brazil's water authority [ANA](#) has kicked off discussions to address water usage rights in São Paulo state's Piracicaba, Capivari and Jundiaí river basins ([PCJ](#)), according to a federal government release.

The PCJ basins supply crucially needed water to the [Cantareira](#) system, which is currently on the brink of drying up.

Water users in the rural areas of São Paulo and Minas Gerais states have until October 8 to submit comments regarding reservoir use restrictions and local water supply conditions.

ANA, which has already drafted a proposal, is planning to make a final regulatory decision by the end of October, the release said.

Water supply for industry - including irrigation - will be reduced 30% and water for livestock consumption 20%, according to the proposal. Industrial water use will be halted between 12pm-6pm and livestock water use between 7am-12pm.

State water utility Sabesp, meanwhile, is working on alleviating the situation, according to the release.

The company is seeking approval from ANA and state water and electricity department [DAEE](#) to extract 106Mm3 of dead volume water, the second such request following the [extraction of 183Mm3](#) of deeply settled water earlier this year.

The utility, which initially submitted a petition in September, now has until October 6 to resubmit updated application documents. An official decision should follow shortly thereafter.

As of Thursday, the Cantareira water system was operating at 6.6% of capacity, its lowest level ever. At its current rate, it looks likely to dry up by end-November.

“Brazil's water regulator kicks off São Paulo river usage debate”, 02/10/2014, online at: http://www.bnamericas.com/news/waterandwaste/brazils-water-regulator-kicks-off-sao-paulo-river-usage-debate1?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=85e6706bde-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-85e6706bde-250657169

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