



ORSAM WATER BULLETIN

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





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The Status of Groundwater in TRNC

Across Cyprus Island, precipitation is the main source of alimentation of water resources. The constant change in the amount of precipitation year by year has negatively affected the water resources. For the last forty years, both in Cyprus as well as in the other Mediterranean states, there has been a problem of scarcity in water resources due to the decline in the amount of precipitation, overevaporation, population growth and the increase in the use of water for agricultural purposes. The annual average precipitation in the island is 513 mm. When this number is compared with an area of 9250 km2, it corresponds to a water capacity of nearly 4600 million cubic meters per year throughout the island. 80 % of this water which is gained through precipitation goes back to atmosphere through evapotranspiration. From the remaining 900 million cubic meters of water (20%); 600 million cubic meters of water merge into surface waters, while 300 million cubic meters of water merge into groundwater. Estimations show that the amount of usable groundwater in the island is 300 million cubic meters. Nearly 270 million cubic meters of it are drafted through pumping, while the remaining 70 million cubic meters flow into sea. Calculations reveal that overpumping (40 million cubic meters in excess) has made the groundwater table sink which results in saltwater intrusion. In addition to the overuse of groundwater, drilling wells located near coastlines is another big factor creating saltwater intrusion. Apart from salination created by saltwater intrusion, there have been other sub-factors which pollute water resources of the island. These sub-factors can be listed as follows; contamination of water by industries, pollution due to ore beds, pouring of domestic wastes into reception basins of water resources owing to the inadequacy of sewerage system and lastly unrestrained discharge of waste into sea and water resources by holiday resorts, which are the major source of income in the island.

Today, groundwater is damaged not only in terms of quality but in terms of quantity as well. There are huge sinks of water tables and some of the groundwater has dried up. The budget of groundwater which is used much more excessive than its alimentation has been unbalanced. Transfer of water from Turkey is going to close the deficit between the water potential of TRNC and current used water. By this project the transfer of qualified water for both drinking and agricultural purposes is



aimed. Moreover, the decrease of heavy burden on groundwater and its rehabilitation are expected as positive extensions of the project.

In the report of Assessment of Water Resources and Use in Cyprus by UNHCR in 1997, the aquifers in the island were subdivided into two classes in accordance with the report prepared by the UN in 1970. First-class aquifers are those sufficiently thick and of wide lateral extent and adequate in terms of continuity- homogeneity. These aquifers in the island can be listed as follows: Western Mesaoira, South-eastern Mesaoira and Akrotiri Peninsula Aquifers. Second class aquifers consist of pervious layers of highly variable thickness and limited lateral extent. Such aquifers are Kyneria, Trodos Massifs, Coastal Plains and Fluvial Sediments.

Two thirds of Western Mesaoira Aquifer (also known as Güzelyurt Aquifer) which is the most important aquifer in the island is situated in Turkish side and one-third of it is located in the South. Aforesaid aquifer is found in the area of the most productive groundwater, which is operable. As a result of the saltwater intrusion in Güzelyurt Basin, the quality of water is severely damaged. Another important aquifer of the island is Gazi Magosa, which has become unusable. Except a few, almost all the rivers in the island are dry throughout a long period of a year. Owing to the inadequacy of surface waters in Cyprus, groundwater has been used since 1950s. Groundwater, which is consumed to meet the need of every sector on the island, is exposed to an extreme use. Although groundwater is perceived as a renewable resource, it loses this feature when it is overused in a way to upset its balance as it is obviously seen in the Cyprus case. Groundwater in Cyprus is under a great threat and generating an alternative water resource for the island has become an obligation. While Greek Cypriot has been trying to solve this problem with seawater distillation, there have been works on transferring water from Turkey for TRNC.

Since it is the first in the world, the project of transferring water via a pipeline is called as the Project of the Century. The foundation of the TRNC Potable Water Supply Project was laid on March 7, 2011. 2,38 cubic meters of water is planned to be transferred via the pipeline per second by this



project, which is envisaged to be completed by this year. This figure equals to 75 million cubic meters per year. Water planned to be transferred is assumed to be used for irrigation and drinking purposes. By February, 2014, the negotiations between TRNC and Greek Cypriot Administration of Southern Cyprus has restarted after one and a half year. It is stated that gas and its transfer could act as a catalyst during the peace process. As it was stated years ago when water was transferred through Medusa bags to TRNC; it is now discussed that water transferred to TRNC will also be a remedy for water problem in the Southern Cyprus on the condition of a positive result from the negotiations.

"The Status of Groundwater in TRNC", 10/03/2014, Tuğba Evrim MADEN, ORSAM, online at: http://www.orsam.org.tr/en/WaterResources/showAnalysisAgenda.aspx?ID=2612

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❖ North Cyprus: Turkish pipeline to pump water from July

(ANSAmed) - NICOSIA, MARCH 24 - An 80km under-sea pipeline, 120 metres beneath the Mediterranean, will start pumping water from Turkey to occupied northern Cyprus in July as Famagusta Gazette online reports. The pipeline will supply 75 million cubic meters of water annually from Turkey. The water coming from Turkey will be stored in a dam near Keryneia. The laying of the foundation stone of the Alakopru Dam, which was the first leg of the project, took place in 2009. "Its primary aim is to provide quality water to the Turkish Cypriot people and to secure that this is sold in reasonable prices", Turkish ambassador Halil Ibrahim Akca said yesterday. He added that the plan is for this water to be filtered after its use in order to be used again in agricultural production, but some problems exist on this issue. (ANSAmed).

"North Cyprus: Turkish pipeline to pump water from July", 14/03/2014, online at: http://www.ansamed.info/ansamed/en/news/sections/environment/2014/03/14/North-Cyprus-Turkish-pipeline-pump-water-July_10230927.html

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❖ Reviving Urmia Lake, the second biggest lake in the Middle East

Second largest lake in the Middle East, after Caspian Sea and the sixth largest salt water lake n the planet, is drying up. Uremia Lake is located on Iran's Northwest. It is internationally protected area as both a UNESCO Biosphere Reserve and a Ramsar Site. In addition Iranian Department of Environment has registered most of the lake as a National Park. Urmia Lake is situated close to Iran's 10th most populated city with the same name. Today, the lake is to its lowest water levels ever recorded. Iranian officials talk about the main reason behind the lake going dry.

Officials say Urmia Lake cannot be revived by government help alone. Iran's head of Department of Environment says that Iran is going to use national as well as international help to control this issue. Iranian officials say lake Urmia's elevation from sea used to be around 1277 meters around 20 years ago and today it is only 1271 meters.

"Reviving Urmia Lake, the second biggest lake in the Middle East", 10/03/2014, online at: http://www.presstv.ir/detail/2014/03/10/354127/revive-urmia-lake-iran-agriculture-well-water-shortage-dam/

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WATER RESEARCH PROGRAMME
-Weekly Bulletin-

❖ Debunking some myths about Israel's water politics

In his speech to Israel's Parliament on February 12, Martin Schultz, president of the European

Parliament, spoke of our shared responsibility to stand up for freedom and dignity at all times. He

acknowledged Israel's success at realising a dream shared by many people: To live "in freedom and

dignity" in "a homeland of their own", noting that Palestinians also have the right to "self-

determination and justice".

He then addressed Palestinian suffering and in doing so, highlighted the glaring discrepancy in access

to water between the Palestinians in the West Bank and Gaza on the one hand, and Israelis - inside

the "Green Line" and on settlements in the West Bank - on the other.

AIPAC did not remain silent. In a New York Timesarticle AIPAC's Seth Siegel suggests that the

Arabs should stop viewing Israel as "the problem". Without any mention of Israel's occupation of

Palestinian land, he calls upon Arabs to reach out to Israel and benefit from its superior know-how.

Israel could save them from water scarcity and reconciliation could ensue. Prime Minister Benjamin

Netanyahu spoke likewise in his address to AIPAC on March 4: The Arabs need to recognise Israel

as a Jewish state; then there would be peace and the deserts would bloom.

The core issues

On the eve of the Oslo Accords, I wrote a book on the potential for cooperation in water use among

adversarial states in dry climate zones. I argued that "functional cooperation" in protracted conflict

settings was exceedingly difficult to achieve. If, however, negotiated arrangements were reached,

they would be piecemeal and narrowly-focused - arrived at because there was no viable alternative.

Such arrangement, nonetheless, should not be construed as reflecting cooperation, and they would

not spill over into peace. I referred to this strategy as conflict-resolution by "nibbling at the edges",

and insisted that it reflected the preferences of the more powerful protagonist and its refusal to

address the core issue of conflict.

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By failing to acknowledge the occupation, would-be conflict-solvers ignore what almost 50 years of

Israel's domination and control over Palestinian land has meant for Palestinian water resources and

access to water.

Since Israel's occupation of the West Bank and Gaza in 1967, Palestinians have consumed only as

much water as the Israeli government allows them.

Not surprisingly, the per capita consumption of a Palestinian household is about one-third that of an

Israeli household. Moreover, Palestinians cannot dig wells for water on their land without permission

from the Israel Water Authority, and in some parts of the West Bank (above the "Mountain" aquifer),

drilling wells is strictly forbidden; further, they can pump from wells only as much water as the

Authority allows.

A graphic representation of the unfair restrictions is that while many Jewish settlements have

swimming pools, Palestinians in "Area C" of the West Bank are not allowed cisterns for collecting

rainwater.

While it has been said that West Bank Palestinians receive much of their water from Israel's national

water utility, this is misleading for Israel does not give Palestinians water; it sells them water. To be

more exact, Palestinians are forced to purchase water from Israel to satisfy demand; and some of the

water they purchase comes from their own aquifers.

This is the case because the Oslo II Accords (1995) - which, according to some, were supposed to

lead to peace - gave Israel control over the water resources of the West Bank, stipulating that

Palestinians will receive only 20 percent, while Israelis, inside the "Green Line" and on West Bank

settlements, make off with 80 percent. As the iniquitous distribution of water reveals, Oslo became

the continuation of control by other means.

As for Gaza, Israeli government advocates claim that under a Hamas government, its water supply

has become polluted. The water situation in Gaza is dire, but not because of Hamas. Rather, at Israel's

insistence, Oslo II stipulated that Gaza should be sovereign in water use and rely for its supply solely

on the aquifer underlying its territory.

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End the occupation

However, population growth and development have made local water needs greater than the local aquifer can provide. With no other source, Palestinians have been over-pumping from the single aquifer, causing the intrusion of seawater and sewage, rendering the water supply unusable. If Gaza's

residents were allowed to access other sources, they would not be over-pumping.

Having said this, the condition of water scarcity is indeed real and requires careful attention,

including the adoption of water-saving technologies and practices.

For the Palestinian territories, however, resource constraints that derive from nature have been

intensified by Israel's punitive policies and unfair distributive practices as the occupying power.

Having imposed debilitating conditions on the Palestinian people, Israel now offers its services as the

saviour of the Palestinians - if only they would cooperate! There is a profoundly disingenuous logic

to this approach.

If Israel genuinely wants peace with its neighbours, it will end its occupation of Palestinian land and

control over the people, their resources, and livelihood. That is the crucial first step.

"Debunking some myths about Israel's water politics", Miriam A Lowi, 10/03/2014, online at:

http://www.aljazeera.com/indepth/opinion/2014/03/debunking-some-myths-about-isra-201431041151246684.html

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Israel Steals Palestinian Resources

Ethnic cleansing is official Israeli policy. So is stealing Palestinian land and resources. Fundamental rule of law principles don't matter.

What Israel wants it takes. It's longstanding policy. Martin Schulz is European Parliament president. He visited Israel.

On February 12, he addressed Knesset members. Outrage followed his remarks. Fascist Israeli MKs walked out in protest.

Days earlier he met a Palestinian youth. "Why can an Israeli use 70 cubic liters of water daily and a Palestinian only 17," he asked.

Schulz raised the issue in his remarks. He said he hadn't "checked the data. I'm asking you if this is correct."

Right-wing extremist MK Moti Yogev shouted at him while he was speaking. "Shame on you," he said. "You support someone who incites against Jews.

Fascists infest Israel's Knesset. Naftali Bennett is one of the worst. He's Israel's Economy Minister. He heads the fascist Habayit (The Jewish Home) party.

He's a Netanyahu coalition partner. He deplores political activism. He wants truth and full disclosure suppressed. He and right-wing ultranationalist Avigdor Lieberman are ideological allies.

They spurn rule of law principles. They want settlements expanded. They want Palestinian resources stolen. They want them denied all rights.

Bennett left during Schulz's speech. He said "I will not tolerate duplications propaganda against Israel in the Knessetâ?|especially not in German."

He accused Schulz of lying. He disgracefully alluded to Germany's Nazi past. "I say unequivocally that someone speaking in German should be even more careful about saying things critical of" Israel, he added.

Culture and Sports Minister Lomor Livnat expressed a similar sentiment, saying:

"We gave him every respect...but when he tells an outright lie, and in German, no wonder MKs and ministers got upset."

Likud party extremist Moshe Feiglin boycotted the Knesset session. He called it "inappropriate that a speech is given in the parliament of the Jewish state, in the language used when our parents were thrust into the railway wagons and in the crematoria."



Netanyahu accused Schulz of repeating claims without "check(ing) first." Doing so would largely verify his comments.

Israel systematically denies Palestinians their own resources. It steals them for its own use. It sells them for profit.

Schulz's comments addressed Palestinian persecution, saying:

They "have the right to self-determination and equality." They want to "live in peace and have unlimited freedom of movement." Gazans are entirely denied it, he added.

"The blockade...is your reaction to attacks on the civilian population. But it does not allow real development and drives people to despair, which in turn is used by extremists. Perhaps the blockade creates not more, but less, security."

Before he spoke, he said Israel won't tolerate justifiable criticism. It's "quite normal in a democracy," he stressed.

"The EU stands by its special relationship with Israel, but that does not mean that it has to agree every decision of (its) government."

B'Tselem monitors human rights in Occupied Palestine. There's "undeniable (Israeli) discrimination in the amount of water allocated to Israelis and Palestinians," it said.

Jews get up to over double the World Health Organization's (WHO) minimum daily recommendation. Palestinians on average get less than three-fourths the minimum needed. In Jenin, they get less than 40%.

More below on B'Tselem's analysis of polluted water Gazans are forced to use.

On Wednesday evening, Knesset speaker Yuli Edelstein met privately with Schulz. He lied about water amounts Israel allows Palestinians.

He shamelessly claimed "no blockade of Gaza" exists. He lied saying Israelis are bombarded by missiles.

Israel attacks Gaza repeatedly. It does so by air, land and sea. It does so preemptively. It does it lawlessly

It shoots Palestinian farmers in their fields. It uses Palestinian children for target practice. It gets away with cold-blooded murder unaccountably. It calls legitimate self-defense terrorism.

On February 9, B'Tselem headlined "Over 90% of water in Gaza Strip unfit for drinking." Offshore waters are dangerously contaminated.



Coastal aquifer water is Gaza's main source for drinking. It's "been continuously over-pumped for decades."

"(T)he Palestinian Water Authority pumps some 180 million cubic meters (mcm) a year..."

Replenishment falls way short of what's needed. It's about 50 - 60 mcm annually.

Groundwater is significantly lowered. Contamination results from seawater seepage as well as saline water "rising from deeper in the reservoir."

Israel sells Gaza 4.2 mcm of water annually. It agreed to sell another 5 mcm of desalinated water a year. Infrastructure to transport it doesn't exist.

It remains to be completed. Besieged Gaza has no proper wastewater treatment facility. Many residents aren't connected to a sewage system.

Domestic waste flows into cesspits. It seeps into groundwater. It contaminates it. "The problem (worsened) in recent years, primarily due to electricity shortages," said B'Tselem.

It's one of many serious problems affecting Gaza. Israel bears full responsibility. Cast Lead and Pillar of Cloud attacks severely damaged power and wastewater treatment facilities.

Huge amounts of sewage go untreated. War inflicted damage was largely repaired. Capacity can't keep up with need. "Gaza's wastewater treatment facilities are far from able to meet the required amounts and standards," B'Tselem explained.

Projects to improve things haven't progressed. Blockade restrictions bear full responsibility. Construction materials and equipment are inadequate. Lengthy bureaucratic delays exacerbate conditions.

The Palestinian Water Authority found a dangerous rise in nitrate levels. It's from contamination from agricultural pesticide use. It's from sewage seeping into aquifer water.

"Every day, only some 25 percent of Gaza's wastewater - about 30,000 cubic meters - is treated and recycled for agricultural use," said B'Tselem.

"Some 90,000 cubic meters of untreated or partially treated wastewater flows into the Mediterranean." Contamination follows. So do health hazards and damage to Gazan fishing. Aquifer water is dangerously high in nitrogen and chloride. It makes "90 to 95% percent of (Gazan) water unfit for drinking and problematic for agricultural use."

PA Water Authority officials said only 6.5% of Gazan well water meets WHO minimum standards.



"Ninety-seven percent of Gazans are connected to the public water supply system." It doesn't provide enough water. Shortages exist. Inadequate infrastructure and power complicate things.

Residents suffer regular water outages. They "receiv(e) running water for only six to eight hours at a time: 25% of households on a daily basis, 40% every other day, 20% once every three days, and the remaining 15% (in Gaza City, Rafah and Jabaliya) only one day out of four."

Erratic supplies force Gazans to collect water in containers. They're placed on rooftops.

Power outages put pumps out of commission. Water can't be channeled into containers. Residents are forced to collect water at ground level.

Wafa al-Faran is a married mother of eight. She lives in Gaza City's a-Shuja'iya neighborhood. She explained her ordeal, saying:

"The power outages really interfere with the water supply to our houses. When there's no electricity, there's very little water in the taps."

"We had to buy a pump so that the water would reach the containers on our roof. We have four containers of 4,000 liters altogether."

"When we get running water, we turn the pump on and fill up the containers. But sometimes, there's no electricity when there?s water."

"When that happened, we used to operate the pump with a generator, so that we wouldn't run out of water. But the generator uses a lot of fuel, which is very expensive."

"Now there's no fuel from Egypt and the fuel from Israel is very expensive, so we don't use the generator at all. Even at night, when we don't have power, we make do with candles and flashlights."

"A few months ago, my husband bought a new water container, which we put at the entrance to the house, so that we can fill it up when there's no power."

"We get water out of the container in buckets, because it's not connected to our plumbing."

"We don't drink the water that from the pipes and don't use it for making coffee or tea or for cooking. We buy fresh water from water vendors."

"Sometimes, I use the fresh water to wash my daughters? hair, and in the morning we use this water to wash our faces, because the water from the taps burns our eyes."

Imagine living through this daily ordeal. Most Gazans are impoverished. Many can't afford to buy fresh water. Imagine consuming what's unfit to drink.



Imagine the health risks doing it. Average Gazan daily water consumption falls below WHO minimums. Residents struggle to get by.

Ibtesam Kheir a-Din is a married mother of six. "The water we get is salty and unfit for drinking," she said. "Sometimes it even smells bad."

"We only use it to clean the house and do dishes and laundry, but nothing ever feels really clean."

"Clothes smell bad and get stained." She and family use vendor-supplied water for drinking.

Last November, Gaza's power plant shut. Enough fuel wasn't available. Generators ran sewage pumping stations.

In mid-month, one in a-Zaytun broke down. A generator malfunction caused 35,000 mcm of raw sewage to flood the neighborhood. Leakage entered homes.

In 2009, the UN Environment Program (UNEP) recommended ceasing coastal aquifer pumping. At issue is possible collapse of Gaza's water system.

Over-pumping continues. What other choice do residents have? No longterm solution exists. Gaza's water crisis deepens.

The Palestinian Water Authority and UNEP agreed. Coastal aquifer supplies "passed the point of no return in terms of rehabilitation options."

By 2016, pumping water no longer will be possible. Crisis conditions are serious. Another solution must be found.

At stake is the health and welfare of nearly 1.8 million Gazans. They need potable water to survive. Siege conditions exacerbate crisis conditions. It's unclear how they'll be resolved.

"Israel Steals Palestinian Resources", 16/03/2014, online at: http://www.thepeoplesvoice.org/TPV3/Voices.php/2014/03/16/israel-steals-palestinian-resources

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❖ March Organized near Jericho In support of Palestinian Water Rights

JERICHO - March 15, 2014 (WAFA) – The Palestinian Water Authority organized Saturday a march in support of Palestinian water rights in Bardala near Jericho.

Taking part in a march organized under the motto "The Jordan Valley Screams" to mark the World Water Day, marchers lifted banners calling for defending Palestinian water rights and praising the steadfastness of Palestinian residents of the Jordan Valley against displacement as a result of settlement construction.

Marchers called for the reclamation of the Palestinians' right to obtain 250 million cubic meter of water from the Jordan River, whose water is exploited by the Israeli occupation authorities.

Among the marchers were head and personnel of the Palestinian Water Authority.

Head of the Palestinian Water Authority, Shadad □ Attili, highlighted depriving the Palestinians in the Jordan Valley from water as a result of the Israeli policies, as well as the Israeli attempts to undermine the Palestinian food basket in the Jordan Valley; the Jordan Valley is a fertile productive region, described as the food basket of Palestine.

"Although we stand on the second largest water reservoir]in Palestine[and near the Jordan River, we are suffering from the water scarcity," said 'Attili.

"March Organized near Jericho In support of Palestinian Water Rights", 15/03/2014, online at: http://english.wafa.ps/index.php?action=detail&id=24597

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❖ Israel-backed "solution" could worsen Gaza's water crisis

There is no dispute that the <u>Gaza Strip's</u> people are in dire need of additional sources of water beyond what Israel currently permits them. The 1.6 million residents of the Gaza Strip have been made entirely dependent on a portion of the Coastal Aquifer, an underground water source it shares with Israel and Egypt.

As a result, their portion is drastically over-extracted and highly-polluted, with a staggering 90 to 95 percent of the water unfit for drinking. Some Palestinians in Gaza have come to rely on purchasing drinking water from private vendors who have set up small, unregulated desalination plants.

Desalination of water is an expensive enterprise due to its dependence on electricity, which is itself in scant supply owing to the meagre and strictly-controlled amount Israel allows the tiny coastal region. In 2009, <u>Amnesty International</u> described the emergence of this private enterprise as a "stop-gap" solution, which the vast majority of Palestinians could not afford.

Israel has prevented Palestinians in both the occupied <u>West Bank</u> and Gaza Strip from accessing their own natural sources of water — namely the Mountain Aquifer or <u>Jordan River</u> in the West Bank and the Coastal Aquifer that stretches along historic Palestine's coast, including Gaza. This has left Palestinians with as little as <u>one quarter</u> the amount of water Israeli citizens are supplied.

Positive buzz

But recently Israel has created a lot of positive buzz touting its new desalination technology — a technology of which Israel has been at the forefront for the last ten years and that the country now boasts will create a constant source of safe drinking water for its own population.

Last December, Israel and Jordan proudly announced the "Red-Dead Project" with a signing ceremony at the World Bank headquarters in Washington DC. The <u>construction project will build a conduit of water from the Red Sea to the Dead Sea</u> and claims to address several issues, including the fact that <u>Dead Sea</u> water levels have dropped a dire 40 meters over the last half-century.



Campaign group Friends of the Earth Middle East says the project has additional goals: "The conveyance would be utilized to generate hydroelectricity and desalinate water, with drinking water

to be pumped to regional population centers and desalination brine discharged into the Dead Sea."

In Gaza, desalination has also been selected as the solution to the water shortages faced by

Palestinians. Despite historic reticence towards desalination, the Palestinian Water

<u>Authority</u> proposed to pursue this option.

In 2011, 43 countries in the Union for the Mediterranean — including Israel — endorsed the

Palestinian Water Authority's proposal and called on donor countries to to secure funding for the

construction of a desalination plant in Gaza.

Undercutting Palestinian claims

However, not everyone supports this approach. The Emergency Water, Sanitation and Hygiene

Coalition (EWASH), a group demanding that Palestinians have greater access to clean water,

has written a position paper delineating why a desalination plant is not an adequate or just solution to

Palestine's grave water situation.

EWASH underscores that a desalination plant enables the continual denial to Palestinians of the

water that legally belongs to them. "Desalination for Gaza, while alleviating the suffering of

Palestinians, undercut Palestinian claims to their water resources in the West Bank, including a larger

share of the Coastal Aquifer, [therefore] legitimizing Israel's appropriation of Palestinian water and

reducing political pressure on Israel to comply with international water law and international

humanitarian law," the paper says.

As the occupying power, Israel is legally obliged to ensure that the Palestinians living under

occupation have access to adequate amounts of water. Yet Palestinians' right to "an equitable and

reasonable share of transboundary water resources" is abused by Israel as a result of how it controls

water resources in a discriminatory manner.

The EWASH paper argues a desalination plant would further increase the isolation of Gaza by

solidifying its separation from West Bank resources.



The Oslo accords of 1993 established that the West Bank and Gaza Strip were in theory a single

territorial entity and yet made no provision allowing for the transfer of water from the West Bank to

the Gaza Strip.

Avoiding obligations

EWASH argues that a desalination plant would allow Israel to avoid its obligation to allow Gaza to

access water in the West Bank.

"Desalination for Gaza should come after the realization of Palestinian water rights and full

sovereignty over their equitable and reasonable share of transboundary water resources," the paper

says.

EWASH also asserts that confining Gaza's water source to one desalination plant would render the

Strip's 1.6 million inhabitants dangerously vulnerable in the case of an Israeli military attack.

"Concerns surrounding strikes on infrastructure are not without precedent: In 2006, the Israeli

military severely damaged Gaza's sole power plant," the paper says. Water and sanitation

infrastructure has also been targeted. Along with hundreds of wells used by farmers, Israel has

destroyed a major water pipeline in Gaza. It also destroyed the Nuseiratsewage pumping station

shortly after its construction was completed in 2011.

In addition to the very stark political implications of the building of a desalination plant, the paper

raises the practical concern of the cost and feasibility of running a desalination plant that requires

scarce and expensive electricity.

Unsustainable

Since 2006 Gaza has experienced a significant energy deficit of about 35 percent. Currently, daily

power cuts run up to eight hours a day.



"The highly impoverished Gazan economy will not be able to bear the costs of keeping the

desalination plant functioning, making the solution very unsustainable," according to EWASH. "The

operation and maintenance costs of the desalination plant would constitute a major obstacle to the

operation of the plant."

In order to procure enough electricity and energy to run the plant, the PWA has estimated that it

would need to be subsidized by international sources for at least three years — to the tune of \$20

million.

"This would, therefore, increase further and perpetuate Palestinian dependency on international aid,

which serves to remove from Israel the burden of responsibility towards the Palestinians and the

obligations it owes them under international law," the EWASH paper says.

The paper points out other general environmental concerns about desalination technology, such as the

ejection of concentrated salt and chemicals back into the sea — which Gaza would not be capable of

counteracting.

EWASH's report is a crucial reminder that Palestine's water crisis has been engineered by the

systematic theft of its resources by Israel. The solution must, therefore, begin with the return of that

which was stolen.

"Israel-backed "solution" could worsen Gaza's water crisis", 03/11/2014, online at:

 $\underline{http://electronic intifada.net/blogs/charlotte-silver/israel-backed-solution-could-worsen-gazas-water-crisis}$

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❖ Water's key role in peace and stability in the Middle East

on the Nile, water has a profound influence on the region's stability and security.

Anybody who questions the importance of water in Middle East geopolitics need only look at the cause of many of the heightened tensions throughout the region. Whether it is Israeli settlers in the West Bank being allocated far more water than the Palestinians whose land they are occupying, or Turkey's abstraction of water relied upon by Iraqi farmers, or Egypt's disputes with nations upstream

All this makes the extreme drought conditions experienced by much of the region this winter a matter for genuine concern. With the wettest part of the year over and the summer heat on its way, a poor harvest raises the prospect of diminished food security and higher prices being faced by many people who will struggle to pay. A spike in the price of staple foods at the end of the 2000s, most will remember, was identified as a major cause of the uprisings of the Arab Spring and elsewhere.

Droughts are one thing but many of the tensions that are present in the Middle East right now are due to policy decisions about water resources shared across borders rather than the vicissitudes of the weather.

Turkey is a case in point. The Tigris and the Euphrates both begin in the mountains of south west Turkey before crossing Syria and Iraq to reach the Gulf. With poor rainfall this winter, farmers downstream on both rivers are particularly reliant on the water for the success of their crops but Turkey has recently increased how much it takes before the rivers leave its territory and deems it has sufficient overall water reserves to pipe water from another Turkish catchment to northern Cyprus. The result is likely to be a water crisis in Syria and Iraq – nations that already face more than enough challenges from civil war and an entrenched Sunni insurgency.

A similar dispute is happening for the Nile, with in this case Egypt having to lobby nations upstream, such as Sudan and Ethiopia, about their extraction of water and plans to build dams. As in Syria and Iraq, the majority of Egyptians would struggle to cope with any significant increase in the price of basic foods.



Israel's occupation of the West Bank has seen illegal settlers receiving about three times as much water per person as the Palestinians. The inequity of settlements having swimming pools when Palestinians cannot dig wells is one more humiliation of occupation.

International law has proven mostly toothless in resolving such disputes, leaving upstream nations with the whip hand, albeit at the cost of stability and security in the region. If in the literal sense, water disputes flow only in the direction that rivers travel, their effects reverberate indiscriminately.

"Water's key role in peace and stability in the Middle East", 13/03/2014, online at: http://www.thenational.ae/thenationalconversation/editorial/waters-key-role-in-peace-and-stability-in-the-middle-east

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CHELLANEY: The coming era of water wars

Upstream 'hydro-hegemony' threatens to trigger downstream upheaval

There is a tongue-in-cheek saying in America — attributed to Mark Twain, who lived through the early phase of the California water wars — that "whiskey is for drinking and water is for fighting over."

It highlights the consequences, even if somewhat apocryphally, as ever-scarcer water resources create a parched world. California currently is suffering under its worst drought of the modern era.

Adequate availability of water, food and energy is critical to global security. Water, the sustainer of life and livelihoods, is already the world's most exploited natural resource.

With nature's freshwater renewable capacity lagging behind humanity's current rate of utilization, tomorrow's water is being used to meet today's need.

Consequently, the resources of shared rivers, aquifers and lakes have become the target of rival appropriation plans. Securing a larger portion of the shared water has fostered increasing competition between countries and provinces.

Efforts by some countries to turn transnational water resources into an instrument of power has encouraged a dam-building race and prompted growing calls for the <u>United Nations</u> to make water a key security concern.

More ominously, the struggle for water is exacerbating impacts on the earth's ecosystems. Humanity is altering freshwater and other ecosystems more rapidly than its own scientific understanding of the implications of such change.

Degradation of water resources has resulted in aquatic ecosystems losing half of their biodiversity since just the mid-1970s. Groundwater depletion, for its part, is affecting natural streamflows, groundwater-<u>fed</u> wetlands and lakes, and related ecosystems.

The future of human civilization hinges on sustainable development. If resources like water are degraded and depleted, environmental refugees will follow.

Sanaa in <u>Yemen</u> risks becoming the first capital city to run out of water. If <u>Bangladesh</u> bears the main impact of <u>China</u>'s damming of River Brahmaputra, the resulting exodus of thirsty refugees will compound <u>India</u>'s security challenges.



Internal resource conflicts are often camouflaged as civil wars. <u>Sudan</u>'s Darfur conflict, for example, arose from water and grassland scarcity.

Interstate water wars in a political and economic sense are being waged in several regions, including by building dams on international rivers and by resorting to coercive diplomacy to prevent such construction.

Examples include <u>China</u>'s frenetic upstream dam building in its borderlands, and downriver Egypt's threats of military reprisals against the ongoing Ethiopian construction of a large dam on the Blue Nile.

Upstream Turkey, inspired by <u>China</u>'s strengthening hydro-hegemony, is accelerating its diversion of the Tigris and Euphrates rivers. This will exacerbate water stress in the two violence-torn, downriver states of Syria and Iraq.

Meanwhile, Israel, with its control of the water-rich Golan Heights and the West Bank aquifers, has leveraged its role as water supplier to Palestinians and Jordanians

The yearly global economic losses from water shortages are conservatively estimated at \$260 billion.

Water-stressed South Korea is encouraging its corporate giants to produce water-intensive items — from food to steel — for the home market in overseas lands. This strategy has created a grass-roots backlash against South Korean firms in Madagascar and <u>India</u>'s Odisha state.

A report reflecting the joint judgment of U.S. intelligence agencies has warned that the use of water as a weapon of war or a tool of terrorism would become more likely in the next decade.

Water is a renewable but finite resource. Unlike mineral ores, fossils fuels and resources from the biosphere such as fish and timber, water (unless bottled) is not a globally traded commodity. The human population has doubled since 1970 alone, though, while the global economy has grown even faster.

Consumption growth, however, is the single biggest driver of water stress. Rising incomes, for example, have promoted changing diets, especially a greater intake of meat, whose production is notoriously water-intensive.

In <u>China</u>, South Korea and Southeast Asia, traditional diets have been transformed in the past generation alone, becoming much meatier.

If the world stopped diverting food to feed livestock and produce biofuels, it could not only abolish hunger, but also feed a population larger by four billion, according to a University of Minnesota study.



Compounding the diet-change impacts on the global water situation is the increasing body-mass

index of humans in recent decades, with the prevalence of obesity doubling since the 1980s.

Obesity rates in important economies now range from 33 percent in the United States and 26.9

percent in Britain to 5.7 percent in China and 1.9 percent in India.

Heavier citizens make heavier demands on natural resources, especially water and energy. They also

cause much greater greenhouse-gas emissions through their bigger food and transport needs.

A study published in the British journal BMC Public Health found that if the rest of the world had the

same average body-mass index as the United States, it would be equivalent to adding nearly an extra

billion people to the global population, with major implications for the world's water situation.

The issue thus isn't just about how many mouths there are to feed, but also about how much excess

body fat there is on the planet.

The point to note is that a net population increase usually translates into greater human capital to

create innovations, power economic growth and support the elderly, but a net increase in body weight

only contributes to state liability and greater water stress.

Preventing water wars demands rules-based cooperation, water-sharing and dispute-settlement

mechanisms.

However, most of the world's transnational basins lack any cooperative arrangement, and there is

still no international water law in force. Worse, unilateralist appropriation of shared water resources

is endemic where autocrats rule.

"CHELLANEY: The coming era of water wars", 13/03/2014, online at:

http://www.washingtontimes.com/news/2014/mar/13/chellaney-the-coming-era-of-water-wars/

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❖ Middle East drought continues, Experts fear global food crisis

The Middle East's driest winter in several decades could pose a threat to global food prices, with

local crops depleted and farmers' livelihoods blighted, UN experts and climatologists say.

Varying degrees of drought are hitting almost two-thirds of the limited arable land across Syria,

Lebanon, Jordan, the Palestinian territories and Iraq. "Going back to the last 100 years, I don't think

you can get a five-year span that's been as dry," said Mohammad Raafi Hossain, a UN Food and

Agriculture Organisation (FAO) environmental economist.

The dry season has already hurt prospects for the cereal harvest. Several of the countries under

pressure are already significant buyers of grain from international markets.

"When governments that are responsible for importing basic foodstuffs have shortages in production,

they will go to outside markets, where the extra demand will push global food prices higher," said

Nakd Khamis, seed expert and consultant to the FAO.

The Standard Precipitation Index (SPI) shows the region has not had such low rainfall since at least

1970. This was part of the initial findings of a joint technical study on Drought Risk Management

undertaken by several UN agencies, including the FAO, UNDP and UNESCO, Hossain said.

Water and agriculture authorities, alongside specialist UN agencies, have begun preparing plans to

officially declare a state of drought that spreads beyond the Eastern Middle East to Morocco and as

far south as Yemen, climatologists and officials say.

Drought is becoming more severe in parts of the Eastern Mediterranean and Iraq, while Syria, having

seen several droughts in recent decades, is again being hit hard, said Mohamad Khawlie, a natural

resources expert with Planinc, an international consultancy focused on geospatial studies in the

Middle East and Africa (MENA) region.



In Jordan, Hazem al-Nasser, minister of water and irrigation, told Reuters precipitation levels were

the lowest since records began 60 years ago.

In Lebanon, where climate change has stripped its mountains of the snow needed to recharge

groundwater basins, rain is "below average", said Beirut-based ecosystem and livelihoods consultant

Fady Asmar, who works with UN agencies. He said the stress on water resources was exacerbated by

the presence of nearly a million refugees since the Syrian civil war began in 2011.

Only Israel will not face acute problems, helped by its long-term investment in desalination plants

and pioneering water management techniques.

In Iraq, which once boasted the largest tracts of fertile land in the region, it is only three years since

the last cycle of drought ended, which covered more than 73 per cent of the country.

Extracts from a soon-to-be released UN-commissioned study says drought in Iraq will persist,

increasing in severity from 2017 to 2026, increasing further the dependence on foreign food imports

by one of the top grains importers in the world.

The extracts say Turkey, where much of Iraq and Syria's water resources originate, has cut the

volume of water flowing into the Euphrates and Tigris rivers by dam construction to meet their own

growing domestic needs.

A poor rain season in Syria has already hit its 2014 wheat outlook in the main

"Middle East drought continues, Experts fear global food crisis", 15/03/2014, online at:

 $\underline{http://indian express.com/article/world/middle-east-africa/middle-east-drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-continues-experts-fear-global-food-crisis/drought-crisis/d$

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❖ \$170m Argentina loss for Israeli water firm Mekorot as BDS spreads southward

In the latest success for the growing Boycott, Divestment and Sanctions (BDS) movement against

Israel, authorities in Buenos Aires have suspended a proposed \$170m water treatment plant deal with

Israeli state water firm Mekorot. The decision came after a campaign by local trade unions and

human rights groups which connected Mekorot's role in Israel's theft of Palestinian water resources

with evidence that the project did not meet Argentine standards and necessities.

Campaigners argued that Mekorot was attempting to export the discriminatory water policies it has

developed against the Palestinian people to Argentina.

This victory largely contradicts Israeli claims, last expressed during Netanyahu's speech at the

<u>AIPAC</u>, that the global south, eager for Israeli technology, are uncontested growing markets.

Mekorot illegally appropriates Palestinian water, diverting it to illegal Israeli settlements and towns

inside Israel, and imposes severe obstacles to Palestinians accessing their own water. Amnesty

International has accused Israel of depriving Palestinians of their access to water "as a means of

expulsion". A French parliamentary report accused Israel of imposing a system of "water apartheid"

in the occupied Palestinian territory.

The Buenos Aires provincial government approved a drinking water plant project deal with a

consortium led by Mekorot following a visit to Israel by state governor Daniel Scioli in 2011, but

protests and lobbying have persuaded local authorities to suspend the project.

The large Dutch water utility Vitens suspended a cooperation agreement with Mekorot on the

grounds that the relationship violated its "commitment to international law" in a high profile

announcement in December.

"After investigating, we concluded that Mekorot came to Argentina with the intention to repeat what

they are doing in Palestine. Water is a right for all and no company should be able to provide water in

a discriminatory way," said Adolfo, an engineer and a representative of the CTA/ ATE Hidráulica

trade union in Buenos Aires that campaigned against the Mekorot plant.

"We fought in solidarity with the Palestinian struggle for justice, liberation and return and we won a

battle not only against Israeli crimes against the Palestinian people but as well for the right to water



here in Argentina," said Tilda Rabi, president of the Federation of Palestinian-Argentinian

Organisations.

Campaigners understand that the decision was made in December 2013 but were only able to verify

the news on March 7.

Friends of the Earth Palestine and a range of BDS partners are calling for a week of action against

Mekorot during the last week of March.

Campaigners are viewing the Buenos Aires decision as the latest sign that the international BDS

movement is increasingly isolating Israel and having serious economic impacts on its regime of

occupation, colonialism and apartheid.

On Thursday, students at the National University of Galway in Ireland voted to endorse BDS in a

campus-wide ballot, following on from a similar referendum success for BDS activists at the

University of Windsor in Canada. National and local student unions across Europe and North

America have now voted to support BDS-related measures.

Israeli media reports attributed the recent withdrawal of two leading European construction firms

from the bid to build seaports in Israel to boycott fears, and a third firm only agreed to go ahead with

similar plans after being allowed to submit a bid under a different name.

It emerged last month that Luxembourg's state pension fund has excluded nine Israeli banks and

firms over their role in illegal Israeli settlements, following on from similar decisions in recent

months by public pension funds in Norway and the Netherlands and Danske Bank, Denmark's largest

bank.

A recent solidarity conference organized by South African members of parliament and civil society

groups issued the Cape Town Declaration endorsing BDS and accusing Israel of the crime of

apartheid.

The Norwegian branch of the YMCA-YWCA movement recently announced its support for an

economic boycott of Israel.

"Israel's attempts to smear the BDS movement are failing; Israel is increasingly being isolated as

people of conscience around the world take action to support Palestinian rights and as investors

realize that there are serious economic and reputational risks associated with doing business with



Israel," said Zaid Shuaibi, a spokesperson for the Palestinian BDS National Committee, the largest Palestinian civil society coalition that leads the global BDS movement.

"Boycott is becoming an increasingly powerful and empowering way for ordinary people to support Palestinians in their struggle to end the occupation and Israel's apartheid policies and for the right of Palestinian refugees to return to their homes," he added.

"\$170m Argentina loss for Israeli water firm Mekorot as BDS spreads southward", 16/03/2014, online at: http://www.alternativenews.org/english/index.php/features/economy-of-the-occupation/7881-170m-argentina-loss-for-israeli-water-firm-mekorot-as-bds-spreads-southward

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❖ Israeli water expert recommends more water intakes, potable sources after chemical leak

Like many people, Danny Lacker read about the water crisis in West Virginia online.

"After I understood what the issues was dealing with, I wanted to see it with my own eyes," Lacker said.

But Lacker is more than just a curious person perusing the Internet. He's the deputy director general of the Israel Water Authority.

"We in Israel have a lot of experience dealing with those kinds of events," he said, citing a scarcity of water and the threat of terrorism.

A delegation of water safety experts and Israeli government officials arrived in Charleston earlier this week. The group conferred with the West Virginia National Guard, as well as business leaders and the local Jewish community. Most of the discussion centered on how to better deal with similar crises in the future.

Lacker said overall, the delegation is impressed with the response efforts made by state officials. But he sees definite room for improvement.

The suggestions ranged from "online" water detection to personal sources of potable water, resources that Israel embrace.

In 2008, the Israeli government spent approximately \$8 million on Kal-cad pouches. The laminated, plastic bags can hold up to one gallon of water. Consumers can use the units for up to a year after opening; unsealed pouches remain usable for 25 years, according to Lacker.

"Every person has one of those folded...waiting for the day he has to use it," said Lacker, who emphasized every person should have enough water stored for at least one day.

Another recommendation focused on the number of intakes connected to water treatment plants.

Approximately 300,000 people get their water from West Virginia American Water Company. Its treatment plant is located about a mile away from Freedom Industries, the storage tank farm from



where the chemicals leaked. The company has been widely criticized for its sole intake on the Elk

River, which company officials never shut down.

"People need to understand that if we had shut down that treatment plant, there would be no

sanitation for 300,000 customers," said Jeff McIntyre, the president of WV American Water in a Feb.

9 interview.

But Lacker said officials need to install more intakes to prevent another crisis from unfolding.

"This is something you can't leave onto the future, you must change this reality," Lacker said.

The West Virginia Legislature recently passed Senate Bill 373, which regulates above-ground storage

tanks. The bill requires that all surface water systems served by a single intake need to explore the

possibility of a secondary intake, as well as two or more days of raw water storage capacity and

interconnections with another system.

A spokesperson for West Virginia American Water said the company will "certainly" be researching

these alternatives.

An early report estimates that a second intake on the Kanawha River would cost between \$70 million

and \$105 million, said Laura Jordan, the WV American Water spokesperson. She added the company

will perform the analyses for all 9 plants across the region.

The Israeli delegation also met with the Charleston Area Alliance and the Mid-Atlantic Technology,

Research & Innovation Center, which is the non-profit organization that was involved in testing

many water samples during the water crisis.

Kevin DiGregorio is the executive director of the Chemical Alliance Zone. He's helping launch the

Water Sustainability Institute and says he hopes this trip opens doors for the Kanawha Valley.

"There's lots of things we can learn from [the Israeli delegation] and maybe there will even be a few

companies that want to locate in West Virginia, might want to do business here," said DiGregorio.

The executive director said he hopes a brimming market for water innovation attracts Israeli and

international investors, something that then attracts jobs.



"That's how things get started," DiGregorio said. "With an initial meeting. Sit around and smile at each other. Ninety percent of what we do is relationships and communication."

The delegation toured the WV American Water treatment facility Wednesday. Their trip ends Thursday.

"Israeli water expert recommends more water intakes, potable sources after chemical leak", 13/03/2014, online at: http://www.wowktv.com/story/24959871/israeli-water-experts-recommends-more-water-intakes-potable-sources-after-chemical-leak

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❖ Israel-backed "solution" could worsen Gaza's water crisis

There is no dispute that the <u>Gaza Strip's</u> people are in dire need of additional sources of water beyond what Israel currently permits them. The 1.6 million residents of the Gaza Strip have been made entirely dependent on a portion of the Coastal Aquifer, an underground water source it shares with Israel and Egypt.

As a result, their portion is drastically over-extracted and highly-polluted, with a staggering 90 to 95 percent of the water unfit for drinking. Some Palestinians in Gaza have come to rely on purchasing drinking water from private vendors who have set up small, <u>unregulated desalination</u> plants.

Desalination of water is an expensive enterprise due to its dependence on electricity, which is itself in scant supply owing to the meagre and strictly-controlled amount Israel allows the tiny coastal region. In 2009, <u>Amnesty International</u> described the emergence of this private enterprise as a "stop-gap" solution, which the vast majority of Palestinians could not afford.

Israel has prevented Palestinians in both the occupied <u>West Bank</u> and Gaza Strip from accessing their own natural sources of water — namely the Mountain Aquifer or <u>Jordan River</u> in the West Bank and the Coastal Aquifer that stretches along historic Palestine's coast, including Gaza. This has left Palestinians with as little as <u>one quarter</u> the amount of water Israeli citizens are supplied.

Positive buzz

But recently Israel has created a lot of positive buzz touting its new desalination technology — a technology of which Israel has been at the forefront for the last ten years and that the country now boasts will create a constant source of safe drinking water for its own population.

Last December, Israel and Jordan proudly announced the "Red-Dead Project" with a signing ceremony at the World Bank headquarters in Washington DC. The <u>construction project will build a conduit of water from the Red Sea to the Dead Sea</u> and claims to address several issues, including the fact that <u>Dead Sea</u> water levels have dropped a dire 40 meters over the last half-century.

Campaign group <u>Friends of the Earth Middle East</u> says <u>the project has additional goals</u>: "The conveyance would be utilized to generate hydroelectricity and desalinate water, with drinking water to be pumped to regional population centers and desalination brine discharged into the Dead Sea."



In Gaza, desalination has also been selected as the solution to the water shortages faced by Palestinians. Despite historic reticence towards desalination, the Palestinian Water

Authority proposed to pursue this option.

In 2011, 43 countries in the Union for the Mediterranean — including Israel — endorsed the

Palestinian Water Authority's proposal and called on donor countries to to secure funding for the

construction of a desalination plant in Gaza.

Undercutting Palestinian claims

However, not everyone supports this approach. The Emergency Water, Sanitation and Hygiene

Coalition (EWASH), a group demanding that Palestinians have greater access to clean water,

has written a position paper delineating why a desalination plant is not an adequate or just solution to

Palestine's grave water situation.

EWASH underscores that a desalination plant enables the continual denial to Palestinians of the

water that legally belongs to them. "Desalination for Gaza, while alleviating the suffering of

Palestinians, undercut Palestinian claims to their water resources in the West Bank, including a larger

share of the Coastal Aquifer, [therefore] legitimizing Israel's appropriation of Palestinian water and

reducing political pressure on Israel to comply with international water law and international

humanitarian law," the paper says.

As the occupying power, Israel is legally obliged to ensure that the Palestinians living under

occupation have access to adequate amounts of water. Yet Palestinians' right to "an equitable and

reasonable share of transboundary water resources" is abused by Israel as a result of how it controls

water resources in a discriminatory manner.

The EWASH paper argues a desalination plant would further increase the isolation of Gaza by

solidifying its separation from West Bank resources.

The Oslo accords of 1993 established that the West Bank and Gaza Strip were in theory a single

territorial entity and yet made no provision allowing for the transfer of water from the West Bank to

the Gaza Strip.

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WATER RESEARCH PROGRAMME
-Weekly Bulletin-

Avoiding obligations

EWASH argues that a desalination plant would allow Israel to avoid its obligation to allow Gaza to

access water in the West Bank.

"Desalination for Gaza should come after the realization of Palestinian water rights and full

sovereignty over their equitable and reasonable share of transboundary water resources," the paper

says.

EWASH also asserts that confining Gaza's water source to one desalination plant would render the

Strip's 1.6 million inhabitants dangerously vulnerable in the case of an Israeli military attack.

"Concerns surrounding strikes on infrastructure are not without precedent: In 2006, the Israeli

military severely damaged Gaza's sole power plant," the paper says. Water and sanitation

infrastructure has also been targeted. Along with hundreds of wells used by farmers, Israel has

destroyed a major water pipeline in Gaza. It also destroyed the Nuseiratsewage pumping station

shortly after its construction was completed in 2011.

In addition to the very stark political implications of the building of a desalination plant, the paper

raises the practical concern of the cost and feasibility of running a desalination plant that requires

scarce and expensive electricity.

Unsustainable

Since 2006 Gaza has experienced a significant energy deficit of about 35 percent. Currently, daily

power cuts run up to eight hours a day.

"The highly impoverished Gazan economy will not be able to bear the costs of keeping the

desalination plant functioning, making the solution very unsustainable," according to EWASH. "The

operation and maintenance costs of the desalination plant would constitute a major obstacle to the

operation of the plant."



In order to procure enough electricity and energy to run the plant, the PWA has estimated that it would need to be subsidized by international sources for at least three years — to the tune of \$20 million.

"This would, therefore, increase further and perpetuate Palestinian dependency on international aid, which serves to remove from Israel the burden of responsibility towards the Palestinians and the obligations it owes them under international law," the EWASH paper says.

The paper points out other general environmental concerns about desalination technology, such as the ejection of concentrated salt and chemicals back into the sea — which Gaza would not be capable of counteracting.

EWASH's report is a crucial reminder that Palestine's water crisis has been engineered by the systematic theft of its resources by Israel. The solution must, therefore, begin with the return of that which was stolen.

"Israel-backed "solution" could worsen Gaza's water crisis", 11/03/2014, online at: http://electronicintifada.net/blogs/charlotte-silver/israel-backed-solution-could-worsen-gazas-water-crisis



* Ethiopia, Egypt at loggerheads over Nile River

Cairo worries Great Ethiopian Renaissance Dam, a \$4-billion hydroelectric project, could choke the downstream flow of Nile River.

WASHINGTON—Egypt's musical-chairs government faces enough challenges. So why is a construction project almost 3,000 kilometres from Cairo provoking fears over Egypt's national

survival?

Egypt and Ethiopia are butting heads over the Great Ethiopian Renaissance Dam, a \$4-billion hydroelectric project that Ethiopia is building on the headwaters of the Blue Nile, near the border between Ethiopia and Sudan.

Cairo worries the megaproject, which began construction in 2011 and is scheduled to be finished by 2017, could choke the downstream flow of the Nile River right when it expects its needs for fresh water to increase.

Brandishing a pair of colonial-era treaties, Egypt argues the Nile's waters largely belong to it and that it has veto power over dams and other upstream projects.

Ethiopia, for its part, sees a chance to finally take advantage of the world's longest river, and says the 6,000 megawatts of electricity the dam will produce will be a key spur to maintaining Africa's highest economic growth rate and for growth in energy-starved neighbours.

"Ethiopia, Egypt at loggerheads over Nile River", 15/03/2014, online at: http://nazret.com/blog/index.php/2014/03/15/ethiopia-egypt-at-loggerheads-over



Minister hopes agreement with Ethiopia is possible

Reaching an agreement with Ethiopia is possible as talks are the best way to find a solution for the Renaissance Dam crisis, said Water Resources Minister Mohamed Abdel Muttalib during a phone-in with Mehwar Channel Wednesday evening.

Egypt believes the Renaissance Dam would negatively affect its share of the Nile River water, specified in an agreement signed under the British occupation. Ethiopia began construction on the dam in 2011. Both countries blame each other over the failure of negotiations over the project.

The Cabinet allocated US\$4.5 million to purge Victoria Lake in cooperation with Uganda's government. It also inaugurated during its latest visit to Uganda 10 wells for drinking out of 75, he said. Uganda is one of the Nile Basin countries which signed the Entebbe agreement over the redistribution of Nile River water in 2010.

"Minister hopes agreement with Ethiopia is possible",13/03/2014, online at: http://www.egyptindependent.com//news/minister-hopes-agreement-ethiopia-possible



❖ Water stations in Sohag closed as Nile turns to a 'river of sand'

The Nile River and its branches in several cities and villages in Upper Egypt have turned to a "river of sand" due to bad weather conditions over the past four days.

Sohag governorate's water and sewage authority announced that it would close 15 water stations in several cities, including the capital city of Sohag, for more than 48 hours because of the Nile's increase in turbidity.

The authority will depend on its water reservoirs during this period.

More water stations are expected to be closed throughout the south, the authority added.

The Nile's sharp rise in turbidity – or muddiness – came from heavy rains earlier this week that displaced sand from mountains and hills along the banks of the Nile in Upper Egyptian villages and cities.

Many villages in Sohag, Assiut and Qena governorates have been suffering from a lack of water and electricity due to the rainstorms.

"Water stations in Sohag closed as Nile turns to a 'river of sand'", 13/03/2014, online at: http://english.ahram.org.eg/NewsContent/1/64/96600/Egypt/Politics-/Water-stations-in-Sohag-closed-as-Nile-turns-to-a-aspx



❖ Dam the damn river!

Of late, Egypt has stepped up the one sided war of words over the massive dam being built on the

Blue Nile (hereafter The Abay or Abay Wenz) by a determined Ethiopia.

One sided because Ethiopians have been treading cautiously, preferring to take a somewhat

conciliatory approach in responding to Egyptian concerns about the project. I for one have had

enough of this wimpy stance on what is after all, my own heritage.

It's about time someone tells Egypt to stop being so ridiculously arrogant in the statements and

communiqués it is propagating in a venomous campaign against Ethiopia and its national interest.

This propaganda drive; offensive as it is, is largely ineffective on Ethiopians but it may convince the

average Egyptian man or woman that, Ethiopia is out to exterminate 90 million Egyptians by

constructing the world's 7th largest dam on the Abay.

This sort of vicious demagoguery is patently untrue, reckless in the extreme and potentially

disastrous in a perpetually volatile region.

To help counter this clear and present danger, this article appeals to all Egyptians of goodwill to try

and understand exactly where Ethiopia is coming from on this age-old issue.

I will detail some of these rationales before I elaborate on Ethiopian assurances that the doomsday

scenario being spouted by Egypt's ruling junta, state and private media and intellectuals is wholly

unjustified.

Ethiopia and Abay Wenz

First and foremost, I would like to explain why I have decided to refer to the contentious river as the

'Abay' instead of the more commonly used appellation, Blue Nile (interestingly, 'Blue' has been

widely translated into Amharic as 'Tikur'-black).

I believe that 'Blue Nile' has a colonial era undertone and serves to foster the illusion that the river is

more an intrinsic part of the Nile proper and by implication, less Ethiopian in identity. Ethiopians

have never referred to the river as 'Blue'



In fact, we are so awed by the mighty torrent that we simply call it Abay-a term in ancient Ge'ez

meaning, The Greatest. Egypt's continued negative stance on the equitable and fair utilization of the

Abay will indicate a violation of Ethiopia's timeless sovereignty.

With this in mind, Ethiopia must reaffirm its God given right to use the water which falls as rain

inside its territory. One way is to insist on the river being called the Abay instead of the description

coined, no doubt, by an obscure white man- most probably from Britain.

Ethiopians have always known that their destiny lies in the bounty of the Abay. They never forget

that ownership of this mighty river has made Ethiopia the target of numerous attempts to invade and

conquer.

From the original ancient Egypt to the Ottomans and the British empires, control of the Abay was an

unattainable holy grail. Incidentally, contrary to public opinion, an independent Egypt has never

challenged Ethiopia in war.

The series of battles and wars fought in north and northwest Ethiopia in the late 1800s were invasions

by the Ottoman Empire using Egyptian troops led by Turkish, Bosnian and Albanian officers.

At the time, Egypt was counting nearly six centuries of occupation by the Ottoman Empire. In other

words, Ethiopia has never gone to war against an independent Egypt.

This of course excludes the historical record prior to AD700 when Egypt lost its sovereign status,

gaining independence only in 1952. Before the Arab invasion and centuries of Ottoman occupation,

Ancient Egypt's successive dynasties recognized the powerful Habesh as the custodians of most of

the water that sustained their civilization.

Accordingly, Ancient Egypt offered yearly tribute to Ethiopian emperors and kings in order to secure

the latter's favor. This tradition of respect contrasts sharply with the behavior of contemporary Egypt.

Egypt is presently telling us to honor so-called treaties on Nile water usage in which, let alone

Ethiopia, they (Egypt) themselves were not party to as an independent state.

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The two treaties in question were prepared by the British for the British and can not be considered

valid under any circumstance. In any case, any so called agreement which arbitrarily apportions all

the water among two entities which do not own the water is utterly preposterous.

Ethiopia, along with other states of the Nile Basin, has always steadfastly rejected such imperialistic

arrogance and has worked to establish an equitable regime under which all riparian states can utilize

the Nile water within their respective territories.

A new era of cooperation has been ushered in to change the status quo. This framework scrupulously

protects the rights of downstream nations while enabling upstream countries to sustainably exploit

their natural resource.

Egypt would do well to embrace this model of utilization of a shared resource instead of relying on

obsolete, inapplicable and downright brazen treaties formulated by its former colonial masters.

Just in case the average Egyptian has been misinformed (it is said many believe the source of the Nile

is somewhere in southern Egypt!), I would like to remind them that Ethiopia was not even invited to

take part in so-called negotiations which summarily denied it the right to its own water.

So, by building dams on the Abay, it's not as if Ethiopia is reneging on signed commitments. After

all, what country would ever agree to sign a document which robbed it of natural resources and

erodes sovereignty? Such documents will never stand up to legal scrutiny.

Another insubstantial assertion is the rather quaint claim by Egypt that it is 'the gift of the Nile' and

as such, it has total ownership of the entire river system.

Promoted mainly by idealistic Egyptologists and sustained by the lucrative tourist industry, the

assertion can hardly justify that Egypt can decide if, when and how Ethiopia can exploit the Abay.

Ethiopians earnestly believe that that their lives can be improved by harnessing the Abay. For at least

the last 10,000 years, the powerful river has spirited away a good measure of Ethiopia's topsoil as it

sped down the valley on its journey to the Mediterranean Sea.

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As drought after drought devastated Ethiopia, its people could only look on helplessly as the great river went its merry way, unhindered. In time, the goal of building a dam on this river became a simmering national challenge.

In the late 1950s, Ethiopia had already put the final touches on a master plan under which up to 100 dams could be constructed on the Abay. The plans were shelved pending more conducive general conditions and we Ethiopians would continue our love-hate relationship with the Abay.

"Dam the damn river!", 13/03/2014, online at: http://newbusinessethiopia.com/index.php/blog/686-dam-the-damn-river



❖ Sudan: Symposium On Eastern Nile Cooperation Opens in Khartoum

A three day symposium on Eastern Nile Cooperation under the title "Opportunities for Regional Development" opened on Monday (March 10) at the University of Khartoum in the Sudan. Over twenty papers will be presented during the three day symposium which has been jointly organized by the University of Khartoum and Addis Ababa University.

Sudan's Minister for Higher Education, Professor Somaia Abukashawa, said that cooperation between Addis Ababa and Khartoum Universities in different areas of scientific research was a very important step that would benefit the region as a whole. She noted that Eastern Nile countries have the potential to develop important links in scientific cooperation, offering win- win results for all.

Ethiopia's State Minister for Education, Dr.Kabba Urgessa, emphasized that the Ethiopian government supported the promotion of scientific cooperation for sustainable development, equitable utilization and management of the Eastern Nile basin through enhanced knowledge-based capacity to manage water resources sustainably for the benefit of all riparian countries.

He said involvement of scholars and researchers from all the countries in the Eastern Nile could be used as a platform for implementing this principle and enhance broader regional collaboration in socio-economic and environmental management.

This would lead to wealth creation and the improvement of livelihoods in Ethiopia, Sudan and Egypt. The President of Addis Ababa University, Dr. Admasu Tsegaye, said Addis Ababa and Khartoum Universities were working together to maximize existing opportunities related to cooperation on the Nile River; and the Vice-Chancellor of Khartoum University, Professor El Siddig A. El. El Sheikon, noted that cooperation between the two universities benefited their peoples and the entire region. Addis Ababa University and the Khartoum University signed a Memorandum of Understanding last December to promote international cooperation in education and research.

"Sudan: Symposium On Eastern Nile Cooperation Opens in Khartoum", 11/03/2014, online at: http://allafrica.com/stories/201403120045.html

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SAHRC releases water and sanitation report

The South African Human Rights Commission has today released a report on the challenges with

regard to the right of access to Water and Sanitation in South Africa.

The report titled: "Water and Sanitation, Life and Dignity: Accountability to the People who are

Poor", was handed over to government representatives, Minister of Human Settlements, Ms Connie

September and Deputy-Minister of Water Affairs, Ms Rejoice Mabudafhasi at a public launch held at

the St Georges Cathedral in Cape Town.

The report is dedicated to the 6-year-old Limpopo pupil, Michael Komape whose parents were in

attendance at the launch. Young Michael became a symbol of government's failure in providing

proper sanitation in schools when he fell into a pit toilet at his school in Chebeng near Polokwane

and died. It is also dedicated to all those who were injured or killed during popular service delivery

protests and many South Africans who struggle to live a dignified life.

The report which is a culmination of three years on intensive investigation and hearings across the

country, reveals a number of alarming findings, notably that in many provinces there is still a lack of

access to any form of water and sanitation infrastructure, which we believe is one of the triggers of

the recent violent protests in the country.

The report also found provincial hotspots of complete non service delivery. It was found that these

hotspots were the same desperately poor and mostly black regions, townships, homelands, and

villages that were disadvantaged under the apartheid era.

These areas were set up away from key resources and were neglected when it came to infrastructure

and basic needs. These historical homelands suffer the same lack of delivery and corruption they did

20-years ago.

Problems related to the provision of water and sanitation services also include a lack of budgets, poor

revenue collection, a lack of technical, management and business skills, political interference,

corruption and unclear municipal powers and functions.

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Another huge problem the Commission found is that water is seen as an economic commodity rather

than a human right. Large-scale agriculture, mining and other industries use most of South Africa's

water at a relatively lower cost per kilolitre than poor households.

Water should not be a luxury. We believe that government needs to adopt a human rights-based

approach to water.

Among the recommendations in the 80-paged report includes:

The bucket system should be eradicated as soon as possible in all provinces. The relevant

government departments should agree on plans with clear timelines for the eradication of buckets in

all existing settlements. This plan must be communicated to affected communities and the

Commission once finalized;

School and water - many schools do not have access to water and sanitation. The provision of water

and sanitation to schools needs specific and urgent attention. A plan should be made available to all

schools and civil society organizations. The Department of Basic Education must ensure that its new

norms and standards for schools infrastructure make the provision of clean drinking water and

dignified sanitation to schools, compulsory within specific timeframes. It cannot be right that in

Khayelitsha for example, of the close to 1500 schools, only 12 had soap and toilet paper. And what

happened to Michael Komape cannot be allowed to happen again.

Need for accountability - government must ensure meaningful consultation with affected

communities. Guidelines for public participation must be developed and it should be made simpler

for people to access information. An essential element of the integrated development plan is public

participation, which we found was almost non-existent

Transparency - local and district municipalities need to start making their annual reports more public,

to aid transparency. The waters are still murky when it comes to the public being able to access

information.

Indigent policy - this policy allows municipalities to target the delivery of essential services to people

who are poor. Currently it makes provisions for, among others, a minimum of 6 kilolitres of water

per household per month, a ventilated improved pit latrine or toilet connected to a septic tank or to



water-borne sewerage. As it stands, a citizen applies for these provisions only if they register themselves. But many people do not register as they fear it will affect their social status.

Others simply don't know that such a policy exists. We recommend that the Department of Cooperative Governance and Traditional Affairs, and the Department of Social Development must ensure that the national indigent policy makes provision for the poor to access basic services. This policy should be revised so that services are provided to whole areas of poor populations, rather than individual households.

Without adequate sanitation facilities, people will continue to face indignity and violence of poverty. A lack of water also impacts other human rights including the right to dignity, education, health, safety and environment.

We call on government and Parliament to ensure that this report and its recommendations are acted upon, and accountability is tantamount to ensure the Constitutional right to basic needs is extended to every citizen.

"SAHRC releases water and sanitation report", 11/03/2014, online at: http://www.politicsweb.co.za/politicsweb/view/politicsweb/en/page71654?oid=564874&sn=Detail&pid=71616



❖ No plan to renegotiate Indus Water Treaty: FO

Pakistan mulls to get water dispute included in composite dialogue with India

ISLAMABAD - Pakistan has no plan to renegotiate historic Indus Water Treaty (IWT) with India and instead considers to get the water dispute included in the composite dialogue process. "There is no proposal under consideration to seek renegotiation on IWT," Foreign Office Spokesperson Tasnim Aslam told The Nation on Friday. Instead, the government is seriously considering making outstanding water dispute with India as part of the composite dialogue process, she added.

And this policy development is largely credited to the parliamentarians who have been making fervent calls for making the outstanding water issue with India as part of the composite dialogue process. The Senate of Pakistan also passed recently a unanimous resolution urging the government to make water dispute with India as part of the composite dialogue process. The mover of the resolution, PPP Senator Sughra Imam, while talking to The Nation said that the purpose of the resolution was to ensure that the government raised the water issue in any dialogue process Pakistan had initiated with India, something Islamabad had failed to do effectively in the past.

"We have relegated water to a backburner issue that only the Indus Water Commissioner raised and that too when it was too late. So, whether it is trade talks or back channel negotiations, outstanding water disputes and issues must be part of bilateral negotiations," she emphasised. The PPP senator went on to say that that purpose of the resolution was to put water issue on the front burner and guarantee that New Delhi addressed it immediately. On renegotiating of the IWT, Senator Sughra Imam said it was a long-term solution, whereas its violations had to be dealt with immediately so that the dams that India was building were stopped or slowed down. She feared that any effort including even buying of water from the dams Indian had built the Sutlei River would ieopardise Pakistan's position. on On the other hand Federal Minister Riaz Hussain Pirzada in a recent interview had hinted at the government's move to buy water from dams constructed by India on Sutlej River, which as per Indus Water Treaty of 1960 belonged to India.



The minister further said that Prime Minister Nawaz Sharif would take up the proposals with Indian authorities on the sidelines of the next SAARC meeting.

However, when contacted, Federal Secretary Water and Power Saifullah Chattha categorically there rejected that was such proposal under consideration. any On the other hand, water experts particularly those who in one way or the other had some attachment with water issues between India and Pakistan believed that Pakistan should not buy water or India until and it addressed Pakistan's electricity from unless water concerns. "Even Pakistan should not talk about the trade as it also involves fate of Pakistani cotton crop," an expert said requesting not to be named. Instead, he called upon the Prime Minister Sharif to take notice of the statements of his cabinet ministers including Khawaja Asif, Khurum Dastagir Khan and Riaz Hussain Pirzada about buying of electricity and water or trade as this would further weaken Pakistan's position.

In a related development, ministry of planning development and reforms in a belated effort is organising Pakistan's Water Summit next week to develop country's first National Water Policy for proactive development and management of water resources.

"No plan to renegotiate Indus Water Treaty: FO", 15/03/2014, online at: http://www.nation.com.pk/national/15-Mar-2014/no-plan-to-renegotiate-indus-water-treaty-fo



China to approve more hydropower dams in Tibet this year

(TibetanReview.net, Mar12, 2014) – Despite the huge costs of resettling migrants and the added risks of earthquakes and ecosystem losses, China is to give a new push to building more hydropower dams in mountainous regions of occupied Tibet this year to meet its clean energy target for the 2011-15 Five-Year Plan period, according to *Reuters* Mar 10. The report cited Chinese Premier Li Keqiang as saying in his annual address to the National People's Congress the week before that China would start construction on a number of hydro and nuclear power projects this year, with cleaner energy a key part of its new "war against pollution."

"Looking at the major projects in the pipeline including those on the Yarlong, Dadu and Jinsha (rivers), which could complete construction by 2015, China would meet and exceed its target ... by as much as 5GW-10GW," Grace Mang, China programme director with advocacy group International Rivers, was quoted as saying. All these rivers rise from Tibet, including Tibet Autonomous Region.

To meet a 2020 target to raise capacity to 420GW, up 50% from the end of last year, the government is committed to putting 120GW of new plants into construction over the 2011-15 period, the report said. However tougher approval rules meant it had fallen behind. Premier Li obviously meant to change that.

Zhang Boting, vice-secretary general of the China Society for Hydropower Engineering, has said hydropower construction will see a relatively large increase this year, compared to last year. However, he feels meeting the five-year construction targets will still be difficult.

The urgency to give a new push to building more hydropower dams is said to arise from the fact that new capacity approved for construction over 2011-2013 accounted for less than a quarter of the amount originally scheduled in a five-year energy plan published two years ago.

China is already the biggest hydropower producer in the world and is on course to exceed a target to raise its hydro capacity by 70 gigawatts over 2011-15.

The report also cited experts as saying that while China had started building more plants on major rivers in the southwest, controversial projects on the Nu River in Yunnan and the Brahmaputra River in the TAR were not expected to get the go-ahead in the near term.

"China to approve more hydropower dams in Tibet this year", 12/03/2014, online at: http://www.tibetanreview.net/news.php?&id=13341

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Proposed Hydroelectric Dam On Mekong River Raises Environmental And Food Security Concerns

Environmental activists are once again raising concerns over a proposed hydropower dam on the 4,300 kilometer Mekong River's lower region in Southern Laos, near the border with Cambodia. The Don Sahong Hydropower project, one of eleven dams proposed for the Mekong River downstream, is to be located on the five-kilometer long Hou Sahong, one of the braided channels of the Mekong River just two kilometers upstream from the Lao-Cambodia border. Environmentalist concerns lie in the impact the dam will have on migration by fish, a vital food source to local communities and a further threat to the endangered Irrawaddy dolphin. The planned Don Sahong Dam would follow that of the Xayaburi Dam, located in mountainous regions of northern Laos. Despite protests and concerns raised by neighboring countries, Cambodia and Vietnam, the Laos Government has pressed on with the project. FSRN's Ron Corben spoke with Dr Robert Mather, head of the South East Asia office of the International Union for Conservation of Nature (IUCN) and initially asked about the IUCN's key concerns over the project.

ROBERT MATHER: IUCN is always primarily concerned that development decisions are made on the basis of best available science. So the Don Sahong Dam project on the Mekong mainstream is potentially a concern for a number of reasons; that we would like to see better scientific investigation and more accurate information before decisions are made. The first issues is related to migratory fish. As you may know the lower Mekong mainstream is the most productive inland fishery anywhere in the world. A lot of that fish productivity is based on migratory species; some of them migrating up to several hundred kilometers up and down the Mekong.

The Don Sahong area is known to be perhaps the only secure fish passage in the dry season in that part of the river near the border between southern Laos and northern Cambodia. So of course there's a major concern, what impacts may or may not have on Mekong fisheries, particularly those migratory species that need to pass through the Hou Sahon channel particularly in the dry season when the water level is low and the other potential areas that the fish could get through are no longer accessible.

FSRN: How dependent are the people in Cambodia on the migratory fish as a source of protein?



Mather: Yes, our concern about the migratory fish is not just about the fish per se, but of course the fact that these fish are of fundamental importance to the food security and the local livelihoods of people living in the Mekong Basin. And of all the Mekong countries that's perhaps most clearly the case in Cambodia more so than the other countries where people are extremely dependent on not just fish but the other things you find in the river as well as crabs, fresh water, prawns, shell fish and so on for their very survival for their food security and for their income.

FSRN: With the development – and it is going ahead — of the Xayaburi Dam. First of all are there are primary concerns about that going ahead and the potential impact of having two dams in that region of the river on the wildlife?

MATHER: The Xayaburi Dam overall will have less impact, direct impact on migratory fish because its higher up, much higher up in the system and there are much fewer fish that actually migrate that high up in the river. So it's not of such direct concern for the immediate survival of these migratory fish and the livelihoods that depend on them. There is an issue, a bigger issue with the Xayaburi Dam relates to its impacts on the sediments transport in the river. The sediment that is carried down by the river from the upper areas including from northern Thailand and Laos — that sediment is what feeds the flood plains in the delta in Cambodia but again mostly in Vietnam and maintains the fertility of those areas. The Mekong Delta in Vietnam is one of the most highly productive places within Vietnam responsible for a huge proportion of both their rice production, and their aquaculture production. And of course it is the sediment that is transported down rivers to the coast that actually helps in the fight against rising sea levels that we're seeing from climate change. If you cut off that sediment supply then you make the job of adapting to climate change that much harder as well.

FSRN: Just finally, how worried would you be if the 11 dams go ahead and are in place over the next decade or so?

MATHER: I think the decision making process – at the moment we have the Mekong River Commission (MRC) which is a body that was established by four countries of the lower Mekong basin, Thailand, Laos, Cambodia, Vietnam. And is intended to bring the countries to work together towards more equitable and more sustainable development of the Mekong River for the benefit of all



the Mekong Basin dwellers. What we saw from the Xayaburi – which was the first time that this process was put into play by the MRC was that it was quite confusing; there was no clear end to the process - a point in time was reached where the Lao Government stated that they believed that the process had ended while the Vietnamese said that they believed it hadn't ended. There were no clear lessons that came out of that the first time that the process was used towards how do we improve it and make the process better the second time around. But really we don't see a very good process at the moment and I think that's quite worrisome and that if things don't get better and the process isn't that good then yes the rest of the cascade of another eight or nine dams, whatever it is, will probably at the moment business as usual scenario. Is that they will also discuss in a not very good process and will all go ahead. And I think that will basically mean you will be transforming the whole Mekong River and you will be moving to a whole other type of River. Not to say that is right or wrong; you are just trading off one set of values and benefits which is mostly at the moment to do with the natural environment and fisheries for another set of benefits which is to do with hydro power generation, economic revenue generation and providing money for development in these countries.

"Proposed Hydroelectric Dam On Mekong River Raises Environmental And Food Security Concerns", 10/03/2014, online at: https://fsrn.org/2014/03/proposed-hydroelectric-dam-on-mekong-river-raises-environmental-and-food-security-concerns/



***** Lower Mekong Countries Urge Halt to Lao Dam Project

Officials from the Mekong countries of Cambodia, Thailand and Vietnam are urging Laos to halt development of a dam project that could have a significant impact on downstream communities and

ecosystems along the river.

Cambodian, Thai, and Vietnamese delegations visited the site of the planned dam on Wednesday. All

three countries have expressed their concerns over the project.

Tek Vannara, head of Cambodia's NGO Forum, a consortium of organizations, told VOA Khmer he

was still concerned after the visit to the Don Sahong dam site.

"If they block the fish migration passages by building this dam, some fish species will surely be lost,"

he said.

He added that the dam would affect at least 6 million Cambodians living either near the site or along

the Mekong River or Tonle Sap lake.

Lao officials said they were conducting the project transparently and with the proper safeguards.

Sin Niny, permanent vice chair of Cambodia's National Mekong Committee, said Cambodia has

maintained its position that Laos should stop the project and conduct more environmental

assessments.

"We demand that Lao study in details as requested by other countries along the Mekong before

starting the dam construction," said Sin Niny.

Meanwhile, more than 50 environmental and development organizations are preparing to submit a

letter to the Mekong River Commission, an inter-regional body formed to tackle river issues, voicing

their concerns over the impact of the dam.

"Lower Mekong Countries Urge Halt to Lao Dam Project", 13/03/2014, online at:

 $\underline{http://www.voanews.com/content/lower-mekong-countries-urge-halt-to-lao-dam-project/1870575.html}$

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❖ International Day of Action for Rivers: warnings over 'explosion of new large dams'

A leading campaign group has urged the World Heritage Committee to oppose the construction of large dams in UNESCO listed heritage sites, as the world observes <u>International Day of Action for</u> Rivers on March 14.

International Rivers, based in California, is set to visit the San Francisco embassies of Peru, Colombia and the Philippines, in an effort to raise awareness of the issue.

The organisation claims that over a dozen locations listed as UNESCO World Heritage Sites are threatened by plans for large dam that will either displace local communities or negatively affect the environment.

One example is a <u>hydropower dam on the Omo river in Kenya</u>, which could affect Lake Turkana, an important landmark for Kenyan people and the supposed birthplace of humankind. Protesters are calling for further investigations into its environmental footprint.

Jason Rainey, executive director of International Rivers, said, "As a global community, we have to draw the line on the explosion of new large dams being planned and built. Are we willing to sacrifice the planet's most outstanding and unique natural and cultural heritage sites to anyone who can raise the money to build a hydropower plant?

"This is the question we're putting before the 21 member states of the World Heritage Committee at their annual meeting in June. Lake Turkana is the lifeline for hundreds of thousands of people today, but we're also talking about the cradle of humanity being sacrificed for energy developers."

Other sites at risk include India's Manas Wildlife Sanctuary, Dong Phayayen-Khao Yai Forest Complex in Thailand, Lake Baika in Russia and the Río Plátano Biosphere Reserve in Honduras.

"International Day of Action for Rivers: warnings over 'explosion of new large dams'", 14/03/2014, online at: http://blueandgreentomorrow.com/2014/03/14/international-day-of-action-for-rivers-warnings-over-explosion-of-new-large-dams/



❖ US-Mexico deal shows how to make water peace, not war

CROSS-BORDER water disputes usually conjure up images of parched Middle Eastern states such as Jordan and Israel. But one of the longest running has been between the US and Mexico over the Colorado river, which travels its final 100 kilometres or so in Mexico before emptying

into the Gulf of California.

Or at least it used to: the river last reached the sea on a regular basis in the early 1960s, before

the Glen Canyon dam was built more than 1000 kilometres upstream.

That dispute is now largely settled following a historic deal. Mexico and the US have agreed to

share both water and drought – an increasingly frequent visitor to the region. One of the most

gratifying aspects of the deal is that it includes ecological restoration (see "Huge water pulse to

bring Colorado river back from dead").

The agreement is already being touted as a model for water agreements elsewhere. Bulgarian,

Chilean, Czech and Kazakh water managers have all visited the region to learn about its

successes.

Sixty per cent of the world's fresh water spans international boundaries, and while dire warnings

of escalating "water wars" have yet to come to pass, managing this vital resource is crucial to

future peace and prosperity. The US and Mexico have shown the way forward.

"US-Mexico deal shows how to make water peace, not war", 13/03/2014, online at:

http://www.newscientist.com/article/mg22129601.800-usmexico-deal-shows-how-to-make-water-peace-not-

war.html#.UyGdYVB sbA

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❖ Drake & Scull is keen to join Saudi water initiative

Saudi Arabia has committed over \$66 billion to long-term capital investments over the next 10 years to promote its water sector. The basic demand for provision of public water services, an expansionary economic policy, a dynamic construction sector and water-intensive operational developments in the

oil and gas industry influenced the allocation.

The planned investments by the country's visionary leadership have the potential to significantly enhance the Kingdom's national security and economic strength. Furthermore, by encouraging private-public partnerships, the country will become better equipped to tackle challenges such as low tariffs water and high costs of water production and transportation. Recognizing the importance of government-industry collaboration in achieving national goals, Drake & Scull International PJSC has expressed its full commitment to taking part in the Saudi government's initiative. The regional market leader delivering integrated end-to-end services in construction and engineering fields will contribute to developmental efforts by offering the global expertise of its team of engineering experts combined with the company's extensive water and power

experience.

Khaldoun Tabari, CEO of DSI, said: "KSA is going through a very interesting phase in terms of development. The increased government expenditures toward infrastructure and water resources expansion in the Kingdom not only enhances our potential to get actively involved in mega projects, but also presents us with an opportunity — albeit a challenging one — to transform its water sector." DSI, is especially poised to capitalize on the investments as it has already made with the acquisition of Passavant-Roediger, a global developer of wastewater, water and sludge treatment technologies, and has firmly established itself as the go-to-specialist for water and wastewater treatment requirements.

Mazen Bachir, managing director, Passavant-Roediger, said: "The length of DSI's operation in the Kingdom allows it to adapt to the complexities and dynamics of the Saudi market. Passavant-



Roediger brings with it advanced technologies and expertise that is unparalleled in the market. Combined, these complementing business streams position the organization to provide exceptional value clients through seamless engineering and procurement capabilities." to Passavant-Roediger's high-rate water purification technology based on its patented Turbo-Large Marine Ecosystem (LME) process and state-of-the-art manufacturing facilities for specialized digestion components has made the company a preferred partner for water management developments. It has been involved in several projects in the Middle East region in recent years, most notably its electromechanical works for Al-Arar's Reverse Osmosis plant for the treatment of brackish ground water to produce 25,000 m³ of potable water per day. It also executed the project for upgrading and extending the Marafiq Jubail Sludge Digestion Plant in DSI acquired Passavant-Roediger in 2009 to enhance its capabilities in the region's water and wastewater sector. Passavant-Roediger is a major global developer of wastewater, water and sludge treatment technologies, with operations across Europe, Africa, Asia and the Middle East. The company delivers comprehensive in-house solutions for the design, supply, build, operations and maintenance, wastewater and water treatment facilities and is one of the leading engineering, procurement and construction (EPC), wastewater and water treatment (WWT) and re-use design and build contractors worldwide.

"Drake & Scull is keen to join Saudi water initiative", 12/03/2014, online at: http://www.arabnews.com/news/538696



❖ B.C. wants Columbia River Treaty renewed, with 14 tweaks

The B.C. government has announced it wants to keep the historic Columbia River Treaty, but

negotiate several improvements.

The treaty, signed in 1961 by Canada and the United States, resulted in the construction of four dams

on the Columbia River that flooded hundreds of kilometres of once pristine valleys in southeastern

B.C. for the purposes of flood control and hydroelectric power generation.

Both governments have to decide this year if they want to terminate the treaty by 2024.

Last year, the U.S. announced it wants to renegotiate the agreement with a stronger focus on climate

change and aiding endangered species. The B.C. government, which is negotiating on behalf of

Canada, has now announced it wants to keep the treaty intact, with a few modifications.

The U.S. currently pays up to \$300 million every year to rent the valleys for water storage.

B.C. Energy Minister Bill Bennett says in exchange the U.S. is getting flood control, power

generation and a lot more from the deal. Therefore, the entitlement payments should stay.

"We're spilling water to assist the U.S. with endangered fish. They get water for navigation and

irrigation. There are a number of benefits the Americans get from the operation and coordination of

Canadians dams. We would like to talk to them about that," said Bennett.

The province also does not want to include the return of salmon in a renewed treaty, stating that there

are older dams on the Columbia River that stop salmon.

The U.S. says it is formalizing its position on the treaty, and is expected to announce its decision this

fall.

"B.C. wants Columbia River Treaty renewed, with 14 tweaks", 14/03/2014, online at:

http://www.cbc.ca/news/canada/british-columbia/b-c-wants-columbia-river-treaty-renewed-with-14-tweaks-1.2572270

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❖ Reality Check: California's Epic Drought? Not Yet

California is no stranger to droughts, as you only have to go back a couple of years to find the last

time the state struggled to produce adequate water resources.

But according to water policy experts, the previous comparison...really is no comparison.

"This drought is much more intense, much more severe than the 2007-2009 drought," said Heather

Cooley, water program director for the Pacific Institute, an Oakland-based research and policy-

making organization concerned with resource management.

"In fact, it's not over yet," she added. "We don't know how long it's going to last. Is it going to be

one year, two years, 10 more years- that part we don't know."

What we do know, at this point, is that the current drought (now in its 3rd year) is *not the worst in

California's recorded history.

That claim was made in the weeks leading up to a recent spate of rainstorms, and at one point was

true- but no longer is.

"We had some very dry months there and it came on a very dry calendar year, 2013," explained Dr.

Jay Lund, director for the UC Davis Center for Watershed Sciences, "but in the rains that we've had

in February and early March, we're pretty much about the 3rd or 4th driest year of record."

Lund said that reservoir levels are still very low and the groundwater basins taxed, "but it's not going

to be a 500-year drought this year."

Even though the drought isn't historically horrific, yet, both environmental science experts agree it's

impacts are still substantial.

Farmers and agriculturalists, who make up about 80 percent of the state's water usage according to

Lund, are strapped. They're being forced to decide between trying to acquire expensive, scare water

through water transfers or fallowing their fields.

Localities throughout the state are also implementing mandatory water restrictions to try and stave

off the worst-case scenario: No more water.



The possibility of running out of water is a realistic scenario for a select few communities right now. Thus far, 17 have been declared in 'severe water shortage' by California's Department of Water Resources, meaning they will run out of water in roughly 60-100 days.

But that number could rise.

State governments have established <u>steps for implementing mandatory and voluntary reductions</u>. The Pacific Institute has also compiled a <u>series of helpful charts and graphs</u> to help Californians understand the impact of drought conditions near them.

Cooley said even if the current drought expires soon, the overarching problem of water management in California will persist.

"The reality is that these types of droughts will become more frequent and intense," Cooley said. "Population is going to continue to grow, our economy grows and water is limited in CA, so we need to learn to live within our means."

She also added that climate change makes our 'hydrologic cycles,' or water cycles, more variable.

"Reality Check: California's Epic Drought? Not Yet", 14/03/2014, online at: http://www.nbcbayarea.com/news/local/Reality-Check-Californias-Epic-Drought-Not-Yet-250425241.html



❖ Brazilian Indigenous Leader Slams Construction of Dams In Amazon

Brazilian Indian Sonia Guajajara led a protest in Paris today – the International Day of Action for Rivers – calling for a halt to the construction of mega-dams in the Amazon.

Sonia led over a hundred protestors to the offices of French companies GDF Suez, EDF and Alstom, which are involved in the construction of several destructive dams.

She led the group in forming 'human waves' which crashed into the office buildings to represent the destruction of large Amazonian dams by the global anti-dam movement. The group then carried its messages to the River Seine. Survival supporters carried placards reading 'STOP AMAZON DAMS'.

Sonia, of the Guajajara tribe in the north-eastern Amazon, is the national coordinator of the Association of Indigenous Peoples (APIB), a network of indigenous organizations in Brazil.

She said, 'Brazil's reputation is at stake... We are here to bring visibility to the unacceptable prejudice and discrimination suffered by indigenous peoples and to demand that it stops'.

Despite fierce opposition, Brazil is forging ahead with its construction of the massive Belo Monte dam on the Xingu River, and the Madeira and Tapajós river dams, all in the heart of the Amazon rainforest.

Sonia Guajajara urged the Brazilian government and French companies GDF Suez, EDF and Alstom to stop the construction of several destructive dams.

Thousands of Indians have been protesting against these projects, warning that they are devastating the forest and putting at risk the lives of the thousands of Indians who live there.

Indian leader Megaron Kayapó said, 'Which rivers will we have for fishing? The Xingu is our river, our supermarket... We live by hunting, fishing, and planting... We have always been against it (Belo Monte), and we will always be against it'.

The uncontacted Indians living near the dam construction sites could be completely wiped out by outside diseases brought in by the thousands of migrants being drawn to the areas.

On Tuesday, Sonia denounced Brazil's abuse of indigenous rights at the United Nations in Geneva, including the government and landowners' aims to weaken indigenous rights and open up indigenous territories for massive industrial projects.



Director of Survival France, Jean-Patrick Razon, said today, 'Sonia's demands in Paris today, just three months before the World Cup kicks off, act as another wake-up call to the human rights scandal inflicted on the Indians by these French companies, and by the Brazilian state. When will they listen and put a stop to this once and for all?'

Sonia's visit to Europe was coordinated by Amazon Watch, France Libertés and Planète Amazone.

"Brazilian Indigenous Leader Slams Construction of Dams In Amazon", 15/03/2014, online at: http://www.popularresistance.org/brazilian-indigenous-leader-slams-construction-of-dams-in-amazon/



❖ Peru in talks with Brazilian builder about restarting mega dam

(Reuters) - Peru is talking with Brazilian construction giant OAS about resuming construction on a

\$4 billion hydroelectric plant that has been stalled since 2011 because of local opposition, an official

said on Wednesday.

Jesus Ramirez, general manager of state-run electricity company Electroperu, said in an interview

that discussions about restarting the controversial 2,000-megawatt Inambari project started with the

company last year.

An OAS representative in Peru said by telephone that the company did not have any comment.

The megaproject, in the Peruvian Amazon near the border with Brazil, was halted in June 2011 by

the government of former President Alan Garcia amid protests by nearby indigenous communities.

The project would dam a river and flood lands where people now live, requiring the relocation of

villages.

Inambari, opposed by several local and foreign indigenous and environmental groups, must be built

before four other dams planned in the region can go forward, Ramirez said.

Ramirez said OAS reached out to Electroperu to help secure environmental permits and make

progress with communities.

"We are talking about creating the right conditions...to develop these projects socially and

environmentally," said Ramirez.

Inambari would generate twice as much electricity as Peru's biggest hydroelectric plant, Mantaro, and

lay the groundwork for eventually exporting electricity to Brazil - a longstanding goal of both

countries.

Ramirez said Peru is now sitting on 20,000 megawatts of hydroelectric potential in Amazonian rivers

near the border with Brazil. Other dams planned in the area include Inambari, Tambo 1, Tambo 2 and

Paquitzapango.



"These projects need to be developed because they are what will secure electricity over the long-term," Ramirez said. "They take 10 to 12 years to finish" and a total investment of around \$60 billion.

Fast-growing Peru also needs to ramp up its electrical production in the near term to meet surging domestic demand and to power its important mining industry.

Peru is the world's third-biggest copper and silver exporter and sixth-biggest gold exporter.

But the lack of new electrical generation worries miners that have invested billions in mega projects set to come online in coming years, especially in southern Peru.

About half of the Andean country's electricity is now generated with <u>natural gas</u> from the Camisea fields in southern Peru.

Ramirez also said Electroperu is considering seeking private investment for a \$1.2 billion expansion of the Mantaro plant. (Additional reporting by Mitra Taj; Editing by Ken Wills)

"Peru in talks with Brazilian builder about restarting mega dam", 12/03/2014, online at: http://www.reuters.com/article/2014/03/13/peru-dam-inambari-idUSL2N0M92FV20140313