

ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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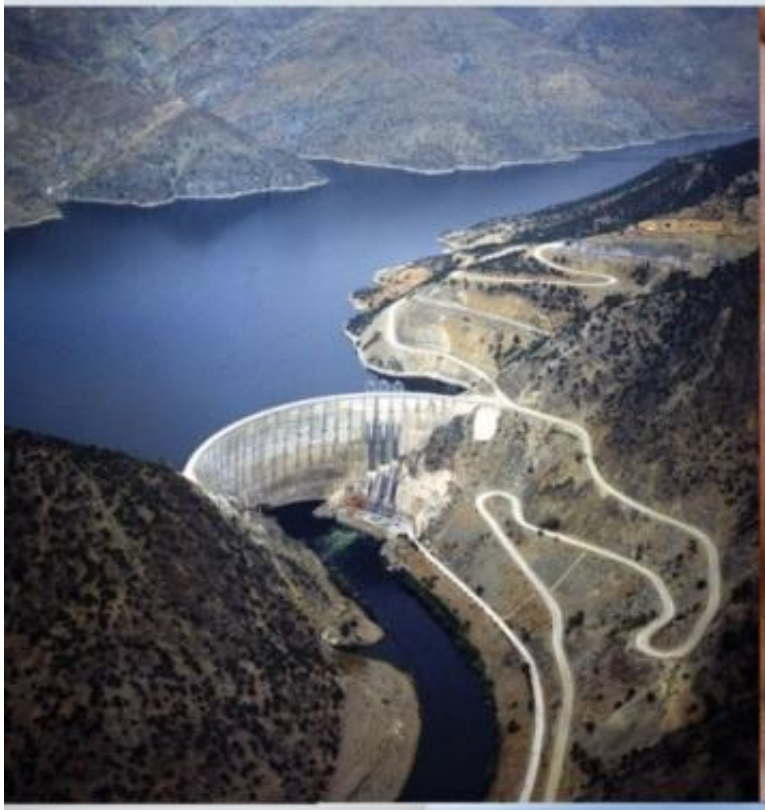



Issue 173

ORSAM WATER BULLETIN

24 March –30 March 2014

- First step taken to supply potable water for Turkish Cypriots
- Iranian Environment Official Eeveals Lake Oroumieh Drying At Severe Level
- Tehran province faces critical water shortage
- Georgia to sell water for Iranian gas
- Israel's water miracle that wasn't
- Gaza drinking water unusable by 2016, official warns
- Some 80000 Palestinians in East Jerusalem without water
- E. Jerusalem Palestinians demand running water be restored
- Israel no longer worried about its water
- Water Apartheid in Palestine
- World Water Day sees launch of First International Week to Boycott Mekorot
- PA pressure censors criticism of Gaza water management
- Jordan seeks to include water among UN development goals
- 'Jordan working to incorporate water, sanitation among the post-2015 development goals'
- Jordan: The Oasis of Peace, Peace
- Italians slam Israel over stealing water
- Authorities remove illegal water pipe in south Amman'
- Court asked to restore water to Arab parts of Jerusalem
- Opposition grows to routing Tel Aviv-area river into Mediterranean Sea
- World unprepared for climate damage to food security – Oxfam
- Cairo Analyst Says Ethiopia Dam Won't Hurt Egypt
- Ethiopia: Egypt and the Nile - At a Crossroad
- Ethiopia approves new deal on Nile River dam project

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- **Ethiopia's Renaissance Dam To Start Generating 700MW By 2015**
- **Kenya master plan for universal access to clean water by 2030**
- **Cambodian PM to attend 2nd Summit of Mekong River Commission**
- **Xayaburi dam 30% finished, says Laos**
- **DIP recycles 51m m3 of waste water in 10 years**
- **Water control system that saves 9,200 gallons of water per tree each year makes mid east debut at agrame**
- **World faces looming crises over shrinking clean water supply**
- **Food and Water Wars**
- **Water sector needs purposeful action to match India's long term needs**
- **Construct dams to avert disaster**
- **World faces 'water-energy' crisis: UN**
- **Water-Energy Nexus Critical to Future Water Policy**
- **Blue-and-White Water Revolution On Its Way to Several U.S. States**

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❖ First step taken to supply potable water for Turkish Cypriots

ANKARA - The first block in a pipeline project to provide water and electricity to the Turkish Republic of Northern Cyprus from Turkey has been placed underwater.

When the construction of the pipeline -- billed as "the project of a century" -- is finished, it will carry at least 75 million cubic meters of water to the Turkish Republic of Northern Cyprus, the Northern Cyprus's Forestry and Water Affairs Minister Veysel Eroglu said in a statement on Thursday.

The "Century Project" is expected to reduce the cost of electricity and water in Northern Cyprus and supply water for the next 50 years, the statement said.

Dutch ships have been shipping in anchor blocks weighing 220 tonnes each for six months, and the first was placed at night on March 22.

- Water shortages

The cost of the dams are close to 80 million Turkish Liras (US$37 million) and the project will supply around 130 million cubic meters of water to the Turkish Republic of Northern Cyprus every year.

The 22km-long pipeline will carry 75 million cubic meters of water from Alakopru Dam to Anamurium Pumping Station, which connects to an undersea pipeline 1km away.

Of the 75 million cubic meters of water, 38 million cubic meters will be used for drinking and the remainder allocated for irrigation.

The pipeline will meet TRNC's water needs as it has been struggling with water shortages for years, according to the statement.

"First step taken to supply potable water for Turkish Cypriots", 27/03/2014, online at: http://www.turkishpress.com/news/397675/

BACK TO TOP

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❖ Iranian Environment Official Eeveals Lake Oroumieh Drying At Severe Level

Hassan Abbasnejad, the head of the Western Azerbaijan Province environment department, announced that the water levels in Lake Oroumieh have fallen by 40 percent.

Iran's Lake Oroumieh (also spelled Urmia) is the largest lake in the Middle East and the third largest saltwater lake on Earth. But dams on feeder streams, expanded use of ground water, and a decades-long drought have reduced it to 60 percent of the size it was in the 1980s. Light blue tones in the 2010 image represent shallow water and salt deposits. Increased salinity has led to an absence of fish and habitat for migratory waterfowl.

Images taken by the Thematic Mapper sensor aboard Landsat 5. Source: USGS Landsat Missions Gallery, U.S. Department of the Interior/U.S. Geological Survey. Image provided by NASA Global Climate Change: Vital Signs of the Planet.

According to ISNA, Abbasnejad said: "In the past 13 years, in addition to a significant decrease in precipitation, a change in the form of precipitation has also influenced the rapid rate of the Lake's drying."

Abbasnejad had said in his earlier reports that 85 percent of Lake Oroumieh's surface has dried up.

Some experts have pointed the finger at agricultural developments and irrigation projects in the region as a major culprit in the demise of the lake.

"Iranian Environment Official Eeveals Lake Oroumieh Drying At Severe Level", 29/03/2014, online at: http://www.payvand.com/news/14/mar/1175.html

BACK TO TOP

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❖ Tehran province faces critical water shortage

Tehran province is facing a critical water shortage, Ghatreh website quoted Khosro Erteqaei, the province's regional water company's managing director, as saying on March 30.

Considering low precipitations in the province, if people do not lower consumption, we will face serious deficit of water resources, he said.

Just 35 million cubic meters of water can be used from two dams in the eastern part of Tehran, he said, adding that the city of Tehran consumes about three million cubic meters of water per day.

The situation of water resources in Iran has passed beyond the critical condition, Donya-ye Eqtesad daily quoted Iranian Energy Minister Hamid Chitchian as saying on February 19.

At present, 96 billion cubic meters of the country's total 120 billion cubic meters of renewable water resources is being consumed annually, he said, adding that if 40-60 percent of renewable water resources is consumed in any country, that country is said to be in a critical condition.

During the past decade, precipitations have declined to 242 millimetres from 250 millimetres, he noted.

The water shortage has reached a critical level in Tabriz, Isfahan, Khuzestan, Qum, Mashhad and Hamadan provinces, advisor to Iran's Energy Minister, Hamidrza Janbaz said on Nov.17, MEHR agency reported.

Currently a special programme is being worked out in order to solve the water shortage problem in the next three years, according to Janbaz.

"A drought has being observed in the country for nearly 13 years. The demand for water increases with population growth," Janbaz said.

In July, Iran's water supply company warned in a special statement about the water shortage in several cities of the country and imposed quotas for fresh water.

Iran is located in an arid zone and the country has been repeatedly faced with drought in the past 40 years.

The drought of 1992-2002 caused a major blow to agriculture. There were quotas imposed for fresh water in several cities including Tehran.

"Tehran province faces critical water shortage",30/03/2014, online at: http://en.trend.az/regions/iran/2257264.html

BACK TO TOP

❖ Georgia to sell water for Iranian gas

The trade turnover of Iran and Georgia reached $200 million and may further increase to $3-4 billion in the future. Iran is not among the top ten Georgian trade partners and will have a chance to rectify this in the next two years, Business Georgia reports.

Iranian Deputy Foreign minister for Asia and the Pacific Ocean Ibrahim Rahimpouer said that a deal was reached with Georgia to buy its water in exchange for Iranian gas. He added that a gas pipeline construction will be built to transport liquefied Iranian gas to Georgia. Iranian businessmen plan realization of large and medium-scale investment projects in agriculture, logistics and processing industry.

The Georgian-Iranian Joint Trade and Industry Chamber is the main structure promoting trade between the two countries.

"Georgia to sell water for Iranian gas", 27/03/2014, online at: http://vestnikkavkaza.net/news/economy/53211.html

BACK TO TOP

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❖ Israel's water miracle that wasn't

It was impressive at first: Long stretches of seemingly barren, beige hills punctuated by abundantly fertile farms growing oranges, dates and watermelons, first appearing in southern Israel in the middle of the 20th century. Unlike the gaudy, fake lakes and gushing fountains of Las Vegas plopped in the middle of the Mojave desert, this prodigious agricultural production was not meant to signal decadence; rather, it was a testament to Israel's prudent husbandry of the land, an intelligence and expertise that not only enriched the region but legitimised the presence of Israel and the expulsion of Palestinians.

Israel credits its use of desalination plants and drip-irrigation with enabling the desert to bloom - the iconic image reinforcing the still-lingering notion that the land of historic Palestine was a dry one, while further impressing Israel's world audience with the young country's wizardry with water.

Less attention is given to the Knesset report commissioned in 2002, nearly four decades after Israel's national water carrier began diverting the Jordan river to Israeli citrus orchards in the Negev region. The report concluded that the region's ongoing water crisis - a desiccated Jordan river and shrinking Dead Sea - was "**primarily man-made**".

In December 2011, Ben Ehrenreich **reported** the unrecuperated cost of such agricultural opulence: It required half of Israel's water while providing only three percent of the country's GDP. Nevertheless, the extravagance was deemed necessary by the commission, which **determined** it held a "Zionist-strategic-political value, which goes beyond its economic contribution".

But there is another motive behind **peddling** the myth of eternal water scarcity in Palestine: If you argue that you're creating potable water out of what was nothing, you've already successfully obscured your theft of something.

In fact, Palestinians have not historically wanted for water. But the characterisation of Palestine as a desperately arid land has, as Clemens Messerschmid **wrote in 2011**, "naturalised" the water crisis that Palestinians experience every day. Gaza, which is currently subsisting off of a water source that

is **95 percent non-potable**, long served as an oasis for travellers crossing from Cairo to Damascus. This history - and more - is important to consider amid the recent enthusiastic clamour over Israel's miraculous **water surplus** that promises to provide a glimmer of hope for peace and cooperation, but is, in truth, a helpful cover-up for its ongoing theft and exploitation.

The mythology is currently in a **renaissance**.

At the beginning of this month, Netanyahu paid a **visit to California** - which has experienced record-low rainfall this year - to create a pact with Governor Jerry Brown that vaguely promised a collaboration on future projects, especially those concerning water conservation and production. To nervous Californians, Netanyahu crowed, "Israel doesn't have a water problem!" - no doubt expecting to dazzle his audience with this miracle before trotting out the virtues of his country's innovation and industry.

The statement was a stunning show of hubris and mendacity in light of the fact that Netanyahu's country has long deprived Palestinians of their own water.

The visit - and the message it carried - are just the latest in the PR ploys aptly called "bluewashing". Israel doesn't have a "water problem" because it steals water from Palestinians.

The theft

The Israeli military has governed all sources of water in the West Bank and Gaza since 1967 and 1974, respectively. Originally gained by military conquest, its control has subsequently been affirmed through the Oslo Accords and, increasingly, the work of the Palestinian Authority and international NGOs.

A brief review of the state's dominion over water resources shows that Israel diverts the Jordan river into Lake Tiberias, as do Jordan, Syria, and Lebanon to their respective territories, leaving the Dead Sea with a declining sea-level. Flaunting international laws against the pillage of occupied lands, Israel controls the mountain aquifer - 80 percent of which lies beneath the West Bank - and over-extracts it for agriculture, as well as settlers' pools and verdant lawns. In 2009, the Mountain Aquifer supplied 40 percent of Israel's agricultural needs and 50 percent of its population's drinking water.

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Israel also takes more than its share from the coastal aquifer that lies beneath Gaza, and diverts the **Wadi Gaza** into Israel's Negev desert, just before it reaches Gaza. Lastly, Israel's wall conveniently envelops wells and springs that lie east of the Green Line.

With all these sources of water, it's no miracle that Israelis can comfortably consume about **five times** as much water as Palestinians.

In 1982, the Ministry of Defence - then led by Ariel Sharon - sold the entirety of the West Bank's water infrastructure to semi-private Mekorot for one symbolic shekel. What was once a military acquisition became the property of a state-owned company; today the Palestinians in the West Bank buy **over half** of their water from Mekorot, often at ahigher price than nearby settlers.

Founded in 1937, Israel's water company, Mekorot, has been crucial to the Zionist state-building project, and to that end has aided in Israel's erasure of its original boundaries. Israeli occupation watchdog group, Who Profits, **notes** that on Mekorot's map of its National Water System, there is no Green Line.

Mekorot's governance of water ensures Palestinians remain on their knees of dependence on Israel - prohibited from using the water flowing beneath their feet or develop their own water infrastructure. The years immediately following Israel's usurpation of Palestine's water resources saw a sharp 20 percent decline in Palestine's agricultural production. Nearly 200,000 Palestinians in the West Bank have **no access** to running water, nor do Palestinians have the ability to collect water themselves without explicit permission, which is **rarely granted**.

Mekorot executes this crime of theft all the while Israel maintains that it has the solutions to scant rainfall and scarcity of water, and that Mekorot provides**humanitarian assistance** to parched and needy Palestinians.

March 22 marked World Water Day, a day commemorated globally every year since 1993. This year, the day was intentionally chosen to kick off a week-long protest against Mekorot - dubbed International Week Against Mekorot - that will end on March 30, Palestine's Land Day. The campaign is crucial amid the current amplification of Israel's trumpeting its water tech prowess.

Mekorot began expanding internationally in 2005; a year that also saw the launch of **Brand Israel Group**, a multimillion-dollar initiative to improve the country's image abroad, in which the exporting of commodities plays a useful role. Israel is presented as the country that provides an answer to one of the globe's most ominous threats - global warming, drought, and water scarcity.

"Israel has taken the challenge of water scarcity and built an export industry in water tech," Will Sarni of Deloitte Consulting, recently **wrote**, noting that the industry saw **a 170 percent** increase in exports in six years. **McKinsey**has estimated that the global water market is the **third or fourth largest commodity market** in the world.

And, while the Palestinian Authority long resisted desalination projects as a substitute for restoring water rights to Palestinians, today it has embraced these technical solutions - yet another indication of its impotence as a political entity.

Yet in spite of all this, not everyone is buying Israel's campaign of bluster and braggadocio. Proponents of BDS, a movement calling for boycotts and sanctions against Israel, have already scored significant victories against Mekorot:**The Netherlands** and **Argentina** recently cancelled contracts with Mekorot, citing Mekorot's violation of international law.

The significance of these successes cannot be overstated: A clear indication that the call for BDS is reaching the ears of government leaders and, perhaps more important, that Zionists are failing in their ceaseless quest to make the world forget their crimes against Palestinians.

"Israel's water miracle that wasn't", 30/03/2014, online at: http://www.aljazeera.com/indepth/opinion/2014/03/israel-water-miracle-palestine-20143247252981587.html

BACK TO TOP

❖ Gaza drinking water unusable by 2016, official warns

A Palestinian official says drinking water in the besieged Gaza Strip will become unusable by the year 2016 should desalination projects keep slowing down.

Marwan Bardaweel, program coordinator at the Palestinian Waters Corporation, said on Sunday that there are many obstacles that have delayed the implementation of water desalination projects in the coastal enclave, adding, "These projects are the only main solution to avoid a future water crisis."

"Among the obstacles are the lack of funds from the donors, the growing energy crisis and the closure of crossing points," Bardaweel said.

He noted, "Israel bans construction materials and the needed equipment for water desalination stations."

Gaza has been blockaded since June 2007, which is a situation that has caused a decline in the standard of living, unprecedented levels of unemployment, and unrelenting poverty.

The apartheid regime of Israel denies about 1.7 million people in Gaza their basic rights, such as freedom of movement, jobs that pay proper wages, and adequate healthcare and education.

The Palestinian Non-Governmental Organizations Network (PNGO), which represents more than 130 Palestinian civil society organizations, has called on the international community to end the "continuous Israeli siege."

Several human rights organizations and civil groups have also criticized the Egyptian army for preventing the people in Gaza from accessing most of their basic goods like construction materials, food, and fuel.

"Gaza drinking water unusable by 2016, official warns", 30/03/2014, online at: http://www.presstv.ir/detail/2014/03/23/355781/gaza-water-unusable-by-2016/

BACK TO TOP

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❖ Some 80000 Palestinians in East Jerusalem without water

(ANSAmed) - TEL AVIV, MARCH 28 - Tens of thousands of Palestinians living in East Jerusalem have been without running water for three weeks, the Association for Civil Rights in Israel (ACRI) made known recently.

Local residents, community leaders and ACRI have filed a petition with the Jerusalem High Court of Justice in a bid to force service providers to restore water to the neighborhoods of Ras Hamis, Ras Shahada, Dahyat a-Salam, and the Shuafat Refugee Camp.

All those neighborhoods are within Jerusalem's municipal boundaries and east of the Separation Barrier.

Hagihon water utility company has admitted that current water infrastructure can support 15,000 people in an area inhabited by an estimated 60-80,000 people, according to ACRI.

"The right to water is a fundamental right bound with the rights to health and dignity", ACRI said.

In an area in which 80% live below the poverty line, residents are being forced to buy bottled water "at exorbitant prices", said Ras Hamis Neighborhood Committee Chairman Jamil Sanduka.

The lack of water is just one example of Jerusalem authorities' neglect of the neighborhoods on the eastern side of the wall. These are almost devoid of educational, welfare, transportation, waste, infrastructure, and even police services, according to ACRI. (ANSAmed).

"Some 80000 Palestinians in East Jerusalem without water", 28/03/2014, online at: http://www.ansamed.info/ansamed/en/news/sections/generalnews/2014/03/28/some-80000-palestinians-in-east-jerusalem-without-water_4e05e962-5b89-4985-87dd-23766237f2b7.html

BACK TO TOP

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❖ E. Jerusalem Palestinians demand running water be restored

In areas where nearly 80 percent live under the poverty line, residents are being forced to buy bottled water for drinking, cooking, showering and cleaning.

Palestinian East Jerusalem residents turned to Israel's High Court on Tuesday demanding that running water be restored to their homes, after suffering for three weeks without it. The petition was filed on their behalf by the Association for Civil Rights in Israel (ACRI).

The East Jerusalem neighborhoods of Ras Shehada, Ras Khamis, Dahyat A'salam and the Shuafat refugee camp, which are cut off from the rest of the city by the separation wall, have gone without running water since March 4.

The Jerusalem municipality does not provide basic municipal services like trash collection to its neighborhoods beyond the eight-meter wall. Even police rarely enter and there is no ambulance service in neighborhoods like Shuafat camp, which are completely surrounded by the wall.

"As a result of the situation, residents are forced to buy bottles of water at exorbitant prices – and this is a population in which 80 percent of people are living under the poverty line. There are elderly, babies, and people with disabilities, and the situation has become unbearable," said Jamil Sanduka, chairman of the Ras Hamis Neighborhood Committee.

"Anywhere else, if thousands of people were without running water, this problem would have been solved quickly. In our case, the problem is first and foremost that all the responsible parties simply do not care," he added.

The Jerusalem municipality's water company "admit that presently the water infrastructure can support 15,000 people; the area's population is estimated to be between 60,000 and 80,000," according to ACRI.

"E. Jerusalem Palestinians demand running water be restored", 26/03/2014, online at: http://972mag.com/e-jerusalem-palestinians-demand-running-water-be-restored/88888/

BACK TO TOP

❖ Israel no longer worried about its water

ISRAEL has gone through one of the driest winters in its history, but despite the lean rainy season, the government has suspended a long-standing campaign to conserve water.

The familiar public messages during recent years of drought, often showing images of parched earth, have disappeared from television, despite weeks of balmy weather with record low rainfalls in some areas.

The level of the Sea of Galilee, the country's natural water reservoir, is no longer closely tracked in news reports or the subject of anxious national discussion.

The reason: Israel has in recent years achieved a quiet water revolution through desalination.

With four plants currently in operation, all built since 2005, and a fifth slated to go into service this year, Israel is meeting much of its water needs by purifying seawater from the Mediterranean.

Some 80 per cent of domestic water use in Israeli cities comes from desalinated water, according to Israeli officials.

"There's no water problem because of the desalination," said Hila Gil, director of the desalination division in the Israel Water Authority.

"The problem is no longer on the agenda."

The struggle over scarce water resources has fuelled conflict between Israel and its neighbours, but the country is now finding itself increasingly self-sufficient after years of dependency on rainfall and subterranean aquifers.

Israel's experience might also offer some important lessons, or at least contrast, for states like California which is now gripped by drought.

With the all-important snow pack averaging only 26 per cent of normal, California has struggled with desalination efforts in the past.

At present, more than a dozen desalination projects are at various stages of planning in the state and the California Department of Water Resources will be announcing a new round of desalination grants in May.

However, one big plant built two decades ago near Santa Barbara, in the final years of an earlier drought, is now dormant and officials estimate it would cost $US20 million ($A22 million) or more to reactivate it.

Israel's efforts to solve its water shortage haven't ended with desalination. The country treats and recycles more than 80 per cent of its waste water, using it primarily for agriculture, making it a world leader in that field.

By easing its own water crunch, experts say, Israel could free up more of the precious resource in a possible peace agreement with the Palestinians.

"Israel no longer worried about its water", 24/03/2014, online at: http://www.news.com.au/world/breaking-news/israel-no-longer-worried-about-its-water/story-e6frfkui-1226863303026

BACK TO TOP

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❖ Water Apartheid in Palestine

This week UN celebrated World Water Day - a day to remember the billion people who are unable to meet their needs for safe, clean water due to drought, poverty and official neglect.
But it's also a day to remember, and fight for, 2.1 million Palestinians who suffer something different – an artificial water scarcity deliberately created and sustained by Israel's military occupation, and the private Israeli water company Mekorot.

Increased international pressure brings hope that the tide may be finally turning for Palestinians striving for water justice in the West Bank and Gaza – in particular, recent investment and partnership decisons against Mekarot, which runs Israel's discriminatory water policy in the West Bank.

Waterless in Gaza and East Jerusalem

The situation in Gaza is especially dire. The tiny, densely populated territory relies entirely on its depleted, saltwater-contaminated and sewage-polluted aquifer, and the water it produces is unfit for consumption. Water has to be bought, expensively, in bottles or from mobile tanks.
Moreover restrictions on fuel imports mean that Gaza's single power station spends most of its time idle – and so long as it's not running water and sewage cannot be pumped. So the taps are dry, toilets are blocked, and sewage pollution gets worse.

Not that Palestinian residents of East Jerusalem have it a lot better. As reported on 17th March, the city suffered a long water cut beginning on 4th March leaving Ras Shehada, Ras Khamis, Dahyat A'salam and the Shuafat refugee camp – cut off from the rest of the city by the separation wall – with no running water.
The reason is simple – old and inadequate water infrastructure, which there are no plans to improve or renew.

Oslo II Accords – the Palestinians were shafted

For West Bank as a whole the facts speak for themselves. The Oslo II Accords dealt Palestinians a singularly poor hand - limiting the volume of water it could produce, as well as imposing severe restrictions on the development and maintenance of Palestinian water infrastructure.

The Accords allow Palestinans to abstract only 118 million cubic meters (mcm) per year from boreholes, wells, springs and precipitation in the West Bank. But Israel is allowed to take four times as much – 483 mcm per year – from the same Palestinian resources.

So not only does Israel now occupy 80% of the area of historic Palestine, but it – via the water company Mekarot – also takes 80% of the water resources from the 20% of the land that is left to the Palestinians.

Sold down the river

But it gets worse. Oslo II's draconian restrictions on water development imposed by Israel mean that Palestinians can only actually abstract 87 mcm in the West Bank, of the 118 mcm they are allowed.

The acute water deficit is made up by the supply of piped water from Israel. Mekarot currently sells the Palestinian Water Authority some 60 mcm per year – at full price.

As reported by Amira Hass in Ha'aretz, *"in that agreement Israel imposed a scandalously uneven, humiliating and infuriating division of the water resources".*

While Palestinian water is piped into Israel at no cost, a fraction of it is then piped back again, and paid for. In this way Israel is extracting from Palestinians both their water, and their money.

In some cases Palestinians are forced to pay ten times more for their water than the price in Tel Aviv – as in the village of Sussia on South Mount Hebron, where they have to drive to the nearby town to buy over-priced water (see photo), even though a water main passes directly through the village on its way to an Israeli settlement.

Water plenty, and water famine

According to the UN Human Rights Council, this all translates into a wide disparity between water use by Palestinians and by settlers in the West Bank. Settlers enjoy 400 litres per capita per day (l/c/d) while some Palestinians surive on a little as 10 l/c/d.

All Palestinian populations receive water volumes far below the level recommended by the World Health Organization of 100 – 250 l/c/d. According to the UNHRC:

"Settlements benefit from enough water to run farms and orchards, and for swimming pools and spas, while Palestinians often struggle to access the minimum water requirements.

"Some settlements consume around 400 l/c/d, whereas Palestinian consumption is 73 l/c/d, and as little as 10-20 l/c/d for Bedouin communities which depend on expensive and low quality tanker water."

These very low levels of water provision fail to meet the water needs of many Palestinian communities – leaving them with often contaminated water, and not enough of it.

While Palestinian water use may just exceed 70 l/c/d in the relatively well served urban centers of the West Bank, it drops much lower in rural areas that have no access to piped water and depend on wells and rainwater collection.

An estimated 113,000 Palestinians in the West Bank have no piped water supply, while hundreds of thousands more have only intermittent supply, especially in the summer.

Additional restrictions

The restrictions and limitations imposed on Palestinians to access their own resources and develop them have exacerbated the already severe water shortages among Palestinian communities.

Among the restrictions are limits on the size of supply pipe, intended to limit flows as a form of rationing. Typically 30% of the water leaks from Palestinian supply pipes – because Israel refuses to allow their renewal

In 'Area C', which covers 60% of the area of the West Bank, Palestinian farmers and communities are not allowed to connect to the water network that serves the growing settlements – and are forbidden even to dig out cisterns.

The international community considers the establishment of Israeli settlements in the Israeli-occupied territories illegal under international law, as set out in the report of the fact finding mission of the United Nations Office of the High Commissioner for Human Rights.

Yet the construction of new illegal Israeli settlements and 'outposts', and the expansion of existing ones, is proceeding apace – and further reducing the quantity of water allocated to Palestinians.

Your water or your life

As reported by the UN in March 2012, another threat arises from settlers seizing springs by force: *"Palestinians have increasingly lost access to water sources in the West Bank as a result of the*

takeover of springs by Israeli settlers, who have used threats, intimidation and fences to ensure control of water points close to the settlements."

The UN Office for the Coordination of Humanitarian Affairs (OCHA) examined 60 springs on Palestinian land close to Israeli settlements. They found that:

"In 22 of the water sources, Palestinians have been deterred from accessing the springs by acts of intimidation, threats and violence perpetrated by Israeli settlers, while in the eight springs under full settler control, Palestinian access has been prevented by physical obstacles, including the fencing of the spring area, and its 'de facto annexation' to the settlement."

Violence and destruction may also come directly from the occupation authorities. *"Destruction of water infrastructure, including rainwater cisterns, by Israeli authorities has increased since the beginning of 2010; double in 2012 compared to 2011.*

"The denial of water is used to trigger displacement, particularly in areas slated for settlement expansion, especially since these communities are mostly farmers and herders who depend on water for their livelihoods.

"A number of testimonies highlighted that the cutting off from water resources often precedes dispossession of lands for new settlement projects."

Mekorot – at the heart of Israel's water apartheid

All Israeli settlements in the West Bank are connected to piped water supplied by Israeli water company Mekorot, which took over responsibility for the water resources of the West Bank from the occupying forces in 1982.

Thus it Mekarot which is both the on-the-ground enforcer, and the economic beneficiary, of the West Bank's 'water apartheid'.

As the UN Human Rights Council reports: *"In the Jordan Valley, deep water drillings by the Israeli national water company Mekorot and the agro-industrial company Mehadrin have caused Palestinian wells and springs to dry up. Eighty per cent of the total water resources drilled in the area is consumed by Israel and the settlements."*

"The lack of availability of Palestinian water resources has led to chronic shortages among Palestinian communities in Area C and a dependence on Mekorot … Mekorot supplies almost half the water consumed by Palestinian communities.

Restricted access

The UNHRC also reported that Palestinians do not have access to the cheaper 'recycled water' available to Israeli settlements, and have to buy more expensive drinking water even for irrigation purposes.

This injustice and inequity of access to water supply has always been a source of tension, especially when Palestinian villagers see water pipes leading to Israeli colonies passing through their land without supplying their village with water – as reported above at Sussia.

"The Mission heard of situations where villagers must travel several kilometres to get water when closer water resources serve neighbouring settlements", reported UNHRC.

And even when they do get water, they receive second class treatment. *"In the event of a water shortage, valves supplying Palestinian communities are turned off; this does not happen for settlements.*

'Week of Action Against Mekorot'

Mekorot violates international law and colludes in resource grabbing -including pillaging water resources in Palestine. It supplies this pillaged water to illegal Israeli settlements, and engages in systematic discrimination and denial of water to the Palestinian population.

For this reason Palestinian organizations including PENGON / Friends of the Earth Palestine have co-organised a 'Stop Mekorot' week of action starting today, on World Water Day.

The campaign aims to intensify pressure on governments and companies to boycott Mekorot and hold the company accountable for its discriminatory water policies and practices in Palestine.

On March 20, the environmental federation Friends of the Earth International announced its support for the campaign against the discriminatory practices of Mekorot – joining the global call on governments, public and private utility companies and investors worldwide to avoid or terminate all contracts and cooperation agreements with Mekorot.

Campaign successes

In December 2013 the largest drinking water supplier in the Netherlands, Vitens, set a precedent when it decided that its commitment to international law meant it had to withdraw from a cooperation agreement with Mekorot. According to the company:

"Vitens attaches great importance to integrity and adhering to international laws and regulations. Following consultation with stakeholders, the company came to the realization that it is extremely difficult to continue joint work on projects, as they cannot be separated from the political environment."

Mekorot suffered another blow this week when authorities in Buenos Aires, Argentina, suspended a proposed $170m water treatment plant deal.

The decision followed a campaign by local trade unions and human rights groups which highlighted Mekorot's role in Israel's theft of Palestinian water resources – and raised the prospect that Mekorot might export its discriminatory water policies to Argentina.

Palestinians must have their rightful share of available resources and be granted full authority to manage them properly. Equitable and wise use of available resources among all people is the only basis for lasting peace in the region.

And until then the deliberate, systematic, purposeful water discrimination and resource theft carried out in Occupied Palestine by the Occupation and Mekorot must be recognised for what they are – crimes against humanity. The perpetrators must be punished accordingly.

Ayman Rabi *represents Friends of the Earth Palestine / PENGON, the Palestinian Environmental NGOs Network – established in 1996 to serve the Palestinian environment by coordinating the scattered efforts of the different Palestinian NGOs working in the field of environment.*
This article originally appeared in The Ecologist.

"Water Apartheid in Palestine", 26/03/2014, online at: http://www.counterpunch.org/2014/03/26/water-apartheid-in-palestine/

BACK TO TOP

❖ World Water Day sees launch of First International Week to Boycott Mekorot

Campaigners from around the world are taking part in a week of action against Israeli national water company Mekorot, the main agent of Israeli water apartheid against Palestinians. The week launches on 22 March, World Water Day, and lasts until 30 March, when Palestinians mark Land Day in protest of Israeli systematic land and resource theft. The mobilizations come in response to a call from Palestinian organizations PENGON/Friends of the Earth Palestine, the Palestinian BDS National Committee and the Land Defense Coalition.

Denouncing Mekorot's Water Apartheid

The Stop Mekorot campaign emerged out of citizen action in countries where Mekorot attempted to establish a presence through lucrative contracts often connected to water privatization drives. Mekorot claims to sell its "expertise" on water but hides its role in the persistent denial of water to Palestinians, including collusion with the Israeli military to destroy Palestinian water infrastructure, while providing unlimited amounts to Israelis. Mekorot's practices have been denounced by the UN and human rights groups yet governments have dealt with the company with a business as usual approach. However there are signs of change. In the Netherlands, Vitens the largest water supplier in the countries, ended an agreement with Mekorot just days after it signed an agreement citing Mekorot's involvement in Israel's military occupation of Palestinians. In Argentina campaigners were successful in suspending a major multi-million dollar government contract with Mekorot to build a wastewater treatment plant.

For basic 6 reasons to boycott Mekorot see: http://stopmekorot.org/6-reasons-to-boycott-mekorot/

Stopping Mekorot's water apartheid from going global

The Stop Mekorot campaign aims to denounce partnerships with Mekorot and hold it accountable for its complicity with violations of international law and the abuse of human rights of Palestinians. To launch the week on World Water Day, campaigners have organized:

Thunderclap on twitter to raise public awareness about Mekorot at 6 pm GMT. Over 250 people have signed up to the Thunderclap with a social reach of over 300 000.

The makers of the series "Apartheid Adventures" have contributed with a YouTube video that satirizes Mekorot's claims vs the brutal reality of occupation, the video can be found here:https://www.youtube.com/watch?v=xunD5IgGFyc (available in English, Spanish, Portuguese, Italian and French)

Across the world campaigners are organizing actions to mark the week:

In Portugal, the first country to launch a campaign in 2009, activists will gather in Lisbon's main square to call for EPAL, Lisbon's water utility company, not to renew its MoU with Mekorot, up for renewal again in the summer. This follows efforts in the Portuguese parliament to denounce the contract this week. In Italy, a 'water checkpoint' will be presented with a street theatre performance in protest of the cooperation agreement signed between Rome's water company Acea and Mekorot.

A series of events and discussions will be held in Argentina, the US, Greece, Uruguay.

In a dozen countries in Europe, the Americas and Asia, media initiatives and awareness raising efforts are taking place.

"World Water Day sees launch of First International Week to Boycott Mekorot", 23/03/2014, online at: http://www.alternativenews.org/english/index.php/features/economy-of-the-occupation/7909-world-water-day-sees-launch-of-first-international-week-to-boycott-mekorot

BACK TO TOP

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❖ PA pressure censors criticism of Gaza water management

A paper arguing that Israel's theft of Palestinian resources would be "legitimized" by the construction of a seawater desalination project in Gaza has been removed from the website of an alliance of anti-poverty and environmental groups because of pressure from the Palestinian Authority and the international children's fund UNICEF.

On 9 March, Emergency Water, Sanitation and Hygiene (EWASH) — a coalition of organizations working across the occupied West Bank and Gaza Strip — issued a note to say the paper had been "prematurely released."

Strong pressure

A source close to EWASH has informed The Electronic Intifada that the coalition's steering committee unilaterally removed the paper due to strong pressure from the Palestinian Authority and UNICEF.

The Palestinian Water Authority (PWA) is an "observing member" of EWASH, while UNICEF is represented on its steering committee, alongside Oxfam, the Palestinian Hydrology Group and another Palestinian organization, the Ma'an Development Center.

According to a well-placed source, the PWA, UNICEF, and officials from the Union for the Mediterranean — all of whom are in the process of collecting funding for desalination projects in Gaza — brought immense pressure on the steering committee to remove the paper.

Speaking on condition of anonymity, the source said that "the steering committee only really noticed it after it was published and saw that it could cause a major problem for them."

Threat to funding

The source noted the paper was seen as a threat to obtaining funding for UNICEF's desalination projects.

UNICEF and the European Union recently held a launch ceremony for a desalination plant for southern Gaza. The EU has allocated 10 million euros ($14 million) to the project.
A protest gathered outside the ceremony, with some people holding signs that read "Water has to be free to cross borders."

EWASH was founded in 2002 to help promote Palestinian water rights. According to my sources, in 2013 some of its member organizations concluded that the Palestinian Water Authority was no longer a reliable advocate for Palestinians' water rights that are, in fact, based on international law.

The position paper on seawater desalination was the first expression of this opposition to the PWA's strategy.

The paper listed a number of problems with building large-scale seawater desalination plants — the course of action the Palestinian Water Authority has pursued to address the insufficiency of water available to Palestinians in the Gaza Strip.

It emphasized that such projects signal an accommodation to Israel's ongoing control of Palestinian water resources and continual denial of Palestinian water rights — denying Palestinians in Gaza equitable access to the Mountain Aquifer under the West Bank and a larger share of the Coastal Aquifer along Gaza's coast.

Dangerously dependent

The paper also argued that desalination increases the isolation of Gaza from the West Bank, and makes people in Gaza dangerously dependent on a facility that is difficult to repair and vulnerable to demolition in the case of Israeli bombings.

The paper had been endorsed by 12 EWASH member groups and 11 other organizations, including the Ma'an Development Center, the Palestinian Centre for Human Rights and theUnion of Agricultural Work Committees.

Josie Shields-Stromsness works for the Middle East Children's Alliance (MECA), an EWASH member which was a signatory to the position paper. Shields-Stromsness, who is based in Bethlehem, told The Electronic Intifada that she received no notification that the paper was going to be withdrawn, and did not receive any explanation as to why it was taken down until 24 March, after several EWASH members requested an explanation. (MECA has also funded a desalination plant in Gaza but has contended that desalination is "not a substitute for demanding Palestinian water rights.")

Shields-Stromsness — like other members of EWASH — had been left to speculate why the position paper was removed.

On 24 March, Ayman Rabi of the Palestinian Hydrology Group, sent an email to EWASH members, seen by The Electronic Intifada.

In it, he acknowledged the "heated discussion" regarding the position paper, but insisted that it was withdrawn because "the statement was signed by 12 organizations out of 27 which is not even 50 percent and the steering committee didn't endorse the publication of the paper."

Rabi added: "We acknowledge that we should have sent this message earlier in order not to create further confusion among the members, but under the stress of other commitments especially on my side since I had to leave abroad, this came late."

"Unacceptable"

But Shields-Stromsness doesn't find this explanation satisfying. "This is the first time I've heard of the steering committee being able to remove a paper," she said.

"I find it really upsetting that there has been no communication that it was removed. That is a lack of transparency that is unacceptable in coalition work."

UNICEF has already installed thirteen small water desalination units in Gaza, according to its spokesperson Catherine Weibel.

In email correspondence with The Electronic Intifada, Weibel stated: "UNICEF believes that children and their families should not go thirsty in Gaza, where more than 90 percent of the aquifer is contaminated with high levels of chlorides and nitrates."

She added, "UNICEF's approach is aimed at a sustainable humanitarian approach and is in line with the strategy of the Palestinian Water Authority (PWA)."

"A desalination facility is currently the only feasible long-term alternative with large impact that can supply Gazans with an adequate supply of drinking water, which is why this strategy was adopted by the Palestinian Water Authority (PWA)."

When asked about UNICEF's opinion on the removal of the paper from the website, Weibel declined to comment.

A second source who wished to remain anonymous, a former EWASH member, said: "Desalination is another victory of the Israeli policy that threatens future negotiation on water rights. Desalination itself makes us more vulnerable, dependent and socially and environmentally fragile than before. Additionally, water must take its right position as a major political and public concern, for which all sectors of society should be involved in the decision-making process."

The PWA did not respond to requests for comment.

In the early 1990s three pilot desalination plants were built in Gaza: one in Deir El-Balahand two in Khan Younis. However, the PA's enthusiastic embrace of desalination would only come more than twenty years later.

The PA's drift toward desalination — and other technical solutions to a largely politically manufactured water crisis in Gaza — can be traced in the Palestine Papers, a large collection of leaked PA documents dating from 1999 to 2010.

Israel's "Trojan horse"

In 2007, for example, the Palestine Liberation Organization's negotiations support unit drew up a document on "core issues."
It stated: "The Palestinians will not be drawn into a further round of minimal concessions by Israel, of small additional shared water volumes or in particular the provision of water from desalination, the Israeli Trojan horse."

The following year, Saeb Erekat, the PA's lead negotiator, got into a quarrel with Israeli officials who argued that "pragmatic solutions" were required for the provision of water to Palestinians, rather than full respect for international law.
Erekat replied: "The pragmatic solution is that it is the day after and I am a state. You want to limit my arms, navy, air force — I accept that. But you are not going to limit my dignity under any circumstances. You are not going to limit my sovereign rights on water, territory, whatever."

But in 2011, the PA published a paper on "emergency technical assistance" for Gaza's water supply. It recommended that "short-term low-volume desalination should be introduced without delay."

And in 2012, a joint paper from the PWA and the European Investment Bank — a European Union insitution — suggested there was a "need" for seawater desalination in Gaza.
Although the question of providing clean and safe water to Palestinians should be guided by human rights, the PA appears to have accepted that it can be addressed by technical fixes that leave Israel's control of Palestinian water resources unchallenged

"PA pressure censors criticism of Gaza water management", 24/03/2014, online at: http://electronicintifada.net/content/pa-pressure-censors-criticism-gaza-water-management/13267?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+electronicIntifadaPalestine+(Electronic+Intifada+%3A+Palestine+News)

BACK TO TOP

❖ Jordan seeks to include water among UN development goals

Jordan is co-ordinating with international aid agencies to incorporate water and sanitation among the post-2015 UN development goals, The Jordan Times reported Monday (March 24th).

"If the Arab region, which suffers from water scarcity, does not push for incorporating water and sanitation as one of the post-2015 millennium development goals (MDGs), then none of the water-rich countries will do so," Water Minister Hazem Nasser said during a ceremony marking World Water Day.

The UN is working with governments, civil society and other partners to build on the momentum generated by the MDGs and carry on with its post-2015 development agenda.

The MDGs are drawn from the actions and targets contained in the Millennium Declaration adopted during the UN Millennium Summit in September 2000.

"Water supply tops Jordan's priorities because the water sector is facing major challenges in light of global warming and the resulting decrease in rainfall," Nasser said. "Water resources are being depleted and there is unprecedented demand on our already shrinking water resources."

The water deficit in the region currently stands at 45 billion cubic metres and is expected to surge to 127 billion cubic metres by 2030, he said.

"Jordan seeks to include water among UN development goals", 25/03/2014, online at: http://al-shorfa.com/en_GB/articles/meii/newsbriefs/2014/03/25/newsbrief-06

BACK TO TOP

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❖ 'Jordan working to incorporate water, sanitation among the post-2015 development goals'

AMMAN — Jordan is coordinating with international aid agencies to incorporate water and sanitation among the post-2015 development goals, Water Minister Hazem Nasser said on Monday.

"If the Arab region, which suffers from water scarcity, doesn't push for incorporating water and sanitation as one of the post-2015 millennium development goals, then none of the water-rich countries will do so," Nasser said in a ceremony marking World Water Day.

The UN is working with governments, civil society and other partners to build on the momentum generated by the MDGs and carry on with an ambitious post-2015 development agenda, according to its website.

Eradicating extreme poverty and hunger is one of eight MDGs to be met by all the world's countries by 2015. The other goals are: reducing child mortality, achieving universal primary education, promoting gender equality, improving maternal health, combating diseases such as HIV/AIDS, ensuring environmental sustainability and creating global partnerships for development.

The MDGs are drawn from the actions and targets contained in the Millennium Declaration adopted during the UN Millennium Summit in September 2000.

"Water supply tops Jordan's priorities because the water sector is facing major challenges in light of global warming and the resulting decrease in rainfall. Water resources are being depleted and there is unprecedented demand on our already shrinking water resources," the minister said in a speech he delivered on behalf of Prime Minister Abdullah Ensour.

Underscoring that the Arab region's share of freshwater constitutes 1 per cent of the world's freshwater resources, Nasser added that the current water deficit in the region stands at 45 billion cubic metres and is expected to surge to 127 billion cubic metres by 2030, when precipitation will drop by 20 per cent due to climate change.

"UN studies indicate that water prices in the Arab region will be 11 times higher than water prices in the rest of the world by 2030… our region will need over $2 billion in capital cost for water and sanitation projects during the next decade, which is a huge financial burden even for fiscally capable countries, such as the Gulf states," he pointed out.

Celebrated annually on March 22, World Water Day's theme for this year is water and energy. Its objectives include raising awareness of the inter-linkages between water and energy and demonstrating, through case studies, that integrated approaches and solutions to water energy issues can achieve greater economic and social impacts.

"'Jordan working to incorporate water, sanitation among the post-2015 development goals'", 24/03/2013, online at: http://jordantimes.com/jordan-working-to-incorporate-water-sanitation-among-the-post-2015-development-goals

BACK TO TOP

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❖ Jordan: The Oasis of Peace, Peace

Jordan is a country rich in history. This, along with its amazing natural beauty, attracts pilgrims and tourists from all parts of the world, as Demola Ojo discovers while touring the middle-eastern kingdom…

Jordan, the name evokes memories of the famous river in the Middle-east; embedded in history for so many reasons. It was the river the Israelites had to cross to reach the Promised Land as documented in the Bible. Another reason, which holds so much importance to Christians, is the fact that Jesus Christ was also baptised by John the Baptist in the Jordan.

The Hashemite Kingdom of Jordan, a Middle Eastern country created in 1946, derives its name from this famous river.

However, the geographical entity known as Jordan today has a rich history which in some cases can be traced back 7,000 years.

This has made Jordan a preferred destination for history buffs and archeologists, as well as pilgrims.

Ancient City of Amman

Evidence of the history of Jordan is captured in Amman, the capital of Jordan. Amman is among the world's oldest continuously inhabited places and has at different times been called different names including Philadelphia when it was a Roman city. Amman is a city built on seven hills and the Amman Citadel, a national historic site at the centre of downtown Amman, sits atop one of them.

The Amman Citadel's history represents significant civilisations that stretched across continents and prospered for centuries, as one empire gave rise to the next. It also symbolises the birth of the three great monotheistic religions - Judaism, Christianity and Islam.

Settlement at the Citadel extends over 7,000 years. The site represents a passage in time with an astounding open-air museum to explore as a part of the heritage of mankind. Historic structures, tombs, walls and stairs point to considerable archaeological potential at this site, as well as in surrounding lands, and throughout Amman.

Peaceful Country

It is important to highlight the peaceful nature of Jordan in an otherwise volatile middle-eastern region. Along with Egypt, it is the only country in the region that has a peace agreement with Israel.

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A little less than a tenth of its population is Christian and it is renowned for its tolerance and pro-western leanings.

Jordan has been known to welcome visitors with open arms, especially refugees from neighbouring countries in strife. Its ability to stay detached from the chaos surrounding it has earned the country the appellation "an oasis of peace in the middle-east", a tagline the Jordan tourism board markets the country under.

Jordan, which is poor in many natural resources including water, has upped the ante in service delivery. It is recognised as a leading education and medical centre in the middle-east, while tourism is a major contributor to its economy.

Jordan has a wide range of attractions. The amazing landscape attracts leisure travellers to the scenic waters of the Red Sea while adventurers are drawn to Wadi Rum for rock climbing among other reasons. Of course, visiting Jordan would be incomplete without a therapeutic dip in the Dead Sea which is the lowest point on the planet at over 400 metres below sea level.

In truth, it would be difficult to compress all of Jordan's touristic charms into this piece without depriving the reader and intending visitor of vital information. Rather, below are a few of Jordan's most significant historical and religious sites.

Baptismal Site of Jesus at River Jordan

The River Jordan is bordered by Israel and the West Bank to the west and Jordan to the East. Bethabara, the spot which according to the King James Version of the Bible is the place where John the Baptist baptised those who came to him is in Jordan. Bethabara is also referred to as Bethany but is distinguished from the Bethany of Lazarus and his sisters as being beyond the Jordan.

Bethabara is about 45 minutes' drive from Amman and the area is also associated with the biblical account of how the Prophet Elijah ascended to heaven in a chariot of fire, after having parted the waters of the Jordan River and walked across it with his anointed successor, the Prophet Elisha.

The site where Jesus was baptised has been excavated and despite the river Jordan shrinking from a width of 60 metres at the time of Jesus' baptism to just two metres now it is still pulls tourists and pilgrims from around the world.

Petra

Petra is a historical and archaeological city in Jordan famous for its rock-cut architecture and water conduit system. Another name for Petra is the Rose City due to the colour of the stone out of which it was carved.

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Dating back as far as 300 BC as the capital city of the Nabataeans, it is a symbol of Jordan, as well as Jordan's most-visited tourist attraction. Petra has been a UNESCO World Heritage Site since 1985 and is one of the seven new wonders of the world.
The site remained unknown to the Western world until 1812. According to UNESCO, it is one of the most precious cultural properties of man's cultural heritage.

Enclosed by towering rocks and watered by a perennial stream, Petra not only possessed the advantages of a fortress, but controlled the main commercial routes which passed through it to Gaza in the west, to Bosra and Damascus in the north, to Aqaba on the Red Sea, and across the desert to the Persian Gulf.
The ability of the Nabataeans to control water supply was one of the main reasons that led to the rise of the desert city, creating an artificial oasis.
One of Petra's most elaborate ruins, Al Khazneh (popularly known as "the Treasury"), is hewn into a sandstone cliff and is in remarkably preserved condition.
A little farther from the Treasury, at the foot of the mountain called en-Nejr, is a massive theatre, positioned so as to bring a great number of tombs within view. At the point where the valley opens out into the plain, the city is revealed with striking effect.
Petra receives an average of 2,000 tourists daily. A tourist visiting Petra should be prepared to walk for a couple of hours and realistically, a day is insufficient to take in the wonders of Petra. However, the marvelous sights are enough compensation for energy expended, as well as the opportunity to buy souvenirs and dine at one of the many restaurants which include a few international brands. There is also the option of touring on horseback, with a donkey, on a camel or in a carriage drawn by horses.

Mount Nebo

Mount Nebo is an elevated ridge in Jordan and is mentioned in the Bible as the place where Moses was granted a view of the Promised Land that he would never enter. From the summit, one can see the Holy Land and the River Jordan. Jericho is also usually visible from the summit, as well as Jerusalem.
According to the final chapter of Deuteronomy, Moses ascended Mount Nebo to view the Land of Israel. "And Moses went up from the plains of Moab to Mount Nebo, the top of Pisgah, which is opposite Jericho."

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According to Christian tradition, Moses was buried at Mount Nebo, although his place of burial is not specified. Also, according to the book of Maccabees, the Prophet Jeremiah hid the tabernacle and the Ark of the Covenant in a cave on Mount Nebo.

Sometime in the year 2000, Pope John Paul II visited the site during his pilgrimage to the Holy Land. During his visit he planted an olive tree beside the Byzantine chapel as a symbol of peace. Pope Benedict XVI also visited Mount Nebo in 2009 from where he gave a speech, and looked out from the top of the mountain in the direction of Jerusalem. Pope Francis is also scheduled to start his pilgrimage of the Holy Land later this year from Jordan and Mount Nebo will be one of the religious sites he is expected to visit.

Jerash

Jerash is the site of the ruins of the Greco-Roman city of Gerasa.

The city is reported to have been founded by Alexander the Great around 331 BC, and is considered one of the most important and best preserved Roman cities in the Middle East.

Remains of the Greco-Roman era of Jerash include the famous city gate known as Hadrian's Arch, two large temples dedicated to Zeus and Artemis, two theatres, a scattering of small temples and an almost complete circuit of city walls.

"Jordan: The Oasis of Peace, Peace", 30/03/2014, online at: http://www.thisdaylive.com/articles/jordan-the-oasis-of-peace-peace/174839/

BACK TO TOP

❖ Italians slam Israel over stealing water

Italian activists have gathered in Rome to demonstrate against what they call Israel's stealing water from Palestinians.

Some Palestinian nationals also attended the event on Saturday, which marked the World Water Day.

The activists say Israel continues to steal water reserves from Palestinian lands in order to attract more migrants and expand agricultural fields.

They called on the Italian government to scrap an accord that Rome's water company ACEA signed last December with the Israeli water company Mekorot.

Last month, a group of Italian activists launched an online petition to raise awareness against the accord.

The petition launched by the Italian movements for public water, pro-Palestine groups and associations promoting peace and inter-religious dialog, complains that Israel's water apartheid runs counter to international law.

The petitioners argued in a message sent to Rome's mayor that Mekorot is nurturing water apartheid in the occupied Palestinian territories, thus breaching international law and human rights.

Amnesty International says Mekorot sells water at highly subsidized prices to Israeli settlers in the illegal settlements across the occupied West Bank, while about 40 percent of the water supplied to Palestinians in the same area is distributed at much higher, unsubsidized prices.

Israel has been under fire for its policies against Palestinians.

The Boycott, Divestment and Sanctions (BDS) movement against the Israeli regime is swiftly gaining momentum all across the globe.

The movement aims to highlight the rights of the Palestinians and the Israeli occupation, with academics and non-governmental organizations worldwide enticed to cut their relations with Israel.

The European Union has issued a new directive urging its 28 member states not to cooperate with Israeli entities that are based or even partly operate in the occupied West Bank, East Jerusalem (al-Quds) and the Golan Heights.

"Italians slam Israel over stealing water", 23/03/2014, online at: http://www.presstv.ir/detail/2014/03/23/355740/italians-slam-israel-over-stealing-water/

BACK TO TOP

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❖ 'Authorities remove illegal water pipe in south Amman'

AMMAN — Authorities on Wednesday discovered a violation on a water main in Jiza that supplies one of the capital's largest reservoirs, according to a government official.

A 75-millimetre pipe was installed on a 600-millimetre main that conveys water from the Qastal pumping station in south Amman to the Abu Alanda reservoir in east Amman, the official said.

"The technical teams faced difficulties in detecting and removing the illegal pipe because it was covered with reinforced concrete. They dug for several hours before they were able to reach the pipe," he told The Jordan Times.

The water was being diverted to a nearby farm and used for the irrigation of crops, the official said.

"The case has been referred for investigation and legal action will be taken against the violator," added the official, who spoke on condition of anonymity.

Meanwhile, authorities have started a campaign to unveil all water violations on water networks and resources in Jiza.

"A report of all the detected violations will be submitted to the water minister by next week and the infringements will be addressed," the official added.

The government announced recently that it was committed to putting an end to all water violations, describing water theft as a form of corruption. To this end, the government has drafted new amendments to the Water Authority of Jordan Law.

The law is currently in Parliament awaiting discussion and endorsement.

Since the ministry launched a crackdown on water violations in August last year, and up until December, more than 7,091 illegal water pipes were dismantled, of which 75.5 per cent were in the capital, according to the ministry's figures.

The ministry registered 1,919 violations on main water conveyors and 3,360 cases of gauge tampering in Amman alone between August and December last year.

"'Authorities remove illegal water pipe in south Amman'" , Jordan Times, 27/03/2014, online at: http://mideastenvironment.apps01.yorku.ca/2014/03/authorities-remove-illegal-water-pipe-in-south-amman-jordan-times/

BACK TO TOP

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❖ Court asked to restore water to Arab parts of Jerusalem

Tens of thousands go dry for three weeks, Water Ministry, Water Authority, municipality and Hagihon utility trade blame.

The Association for Civil Rights in Israel and east Jerusalem residents appealed to the High Court of Justice on Tuesday, petitioning against the lack of running water in several neighborhoods east of the security barrier for the past three weeks.

Most homes in the neighborhoods of Ras Hamis, Ras Shahada, Dahyat a-Salam and the Shuafat refugee camp have either had no water or very low water pressure, ACRI attorney Keren Tzafrir wrote in the petition. Tens of thousands of residents have needed to buy bottled water or large containers of water during these weeks, according to ACRI.

"These are residents of Jerusalem, totally under the responsibility of the municipality and the government," Tzafrir said. "The separation barrier that cuts these neighborhoods off from the rest of the city does not in any way absolve the authorities of their failures."

The petitioners have demanded that the National Infrastructure, Energy and Water Ministry, the Water Authority, the Jerusalem Municipality and Hagihon – Jerusalem Water and Sewage Industries take all the necessary measures to ensure that Hagihon resumes the supply of running water to all of the homes in this area.

Jamil Sanduka, chairman of the Ras Hamis Neighborhood Committee, said residents are forced to buy bottled water at exorbitant prices, although about 80 percent of them live under the poverty line.

"There are elderly, babies and people with disabilities, and the situation has become unbearable," Sanduka said. "Anywhere else, if thousands of people were without running water, this problem would have been solved quickly. In our case, the problem is first and foremost that all the responsible parties simply do not care."

The High Court petition builds on efforts from last week, when ACRI East Jerusalem Project director Ronit Sela wrote a letter to National Infrastructure, Energy and Water Minister Silvan Shalom and demanded immediate intervention from his office.

As part of a 2005 cabinet decision on the route of the security barrier, officials committed to addressing the lack of proper infrastructure in neighborhoods east of the barrier, ACRI said. Yet after nine years, little progress has been made, the organization stressed.

In response to the filing of the High Court petition, the National Infrastructure, Energy and Water Ministry said that "if and when the petition reaches us, it will be examined and our response will be submitted to the court."

The Jerusalem Municipality, meanwhile, said that the responsibility for this issue falls with Hagihon.

Addressing the situation, a spokesman for Hagihon referred to a meeting a few days ago of the Knesset Public Petitions Committee, in which MK Adi Kol (Yesh Atid) demanded that the Water Authority regulate the shortage in the northeastern Jerusalem neighborhoods located beyond the security barrier.

At the committee meeting, it was revealed that about NIS 100 million of infrastructure improvements are required in these neighborhoods, Hagihon said. Meanwhile, the company provides residents there with about 1.5 million cubic meters of water annually at a cost of NIS 10m. for free, according to Hagihon general manager Zohar Yinon.

Following the Knesset committee meeting, Yinon sent on Monday a letter to Jerusalem Police commander Asst.-Ch. Yossi Pariente requesting security escorts for Hagihon workers to be able to conduct professional tours and evaluations in the neighborhoods. Infrastructure planning will require mapping and examinations of the pirated connections in the area as well as of the existing infrastructure, Yinon wrote.

Asking the police to give priority to the issue, Yinon said it is necessary to find water and sewage solutions for the population as soon as possible.

"The truth is that time and time again we approached the Water Authority in the last couple of years and we have had endless sessions with them about how to approach this matter of unauthorized building in those few neighborhoods beyond the security wall," Yinon told The Jerusalem Post on Tuesday night."The situation has not enabled us to work there on a normal basis as we do in every part of Jerusalem – the south, east or west of Jerusalem."

Because Israeli zoning and planning rules are not implemented east of the barrier, residents are building homes on top of the water networks, installing pirate connections and engaging in vandalism, Yinon said.

"We are not allowed to work there without special permission from the police, which is given at a very specific basis," he said. "When you have to operate water and sewage networks, you have to work on a regular basis."

Meanwhile, he explained, about 97 percent of the people living in these neighborhoods do not pay for their water and sewage services, Yinon said.

"It's like Hagihon is supplying a medium- sized city water for free," he said.

Emphasizing that Hagihon is doing everything possible to fix the situation, Yinon said that the Water Authority is ultimately responsible for water and sewage. As the authorized state agency, the Water Authority should be holding necessary meetings on the subject with relevant bodies, such as the IDF, the police, and the Interior, Finance and Justice ministries, he said.

"We have approached the Water Authority time and time again and they are not doing their job," he said.

"Our frustration is that we saw the problem coming," Yinon added. "We saw the disaster coming."

In response, Water Authority spokesman Uri Schor said that ultimately, Hagihon is the supplier of water to Jerusalem and responsible not only for supplying the water to residents, but also for collecting the money owed for this service.

"The Water Authority is aware of the problem and has instructed Hagihon to inspect the area after they receive the police escort, and what they need to do is try to understand what are the problems and to overcome them," Schor told the Post. "Hagihon is the supplier of water in Jerusalem."

http://www.jpost.com/Enviro-Tech/East-Jerusalem-residents-petition-High-Court-over-lack-of-water-346509

HAARETZ
Rights watchdog says four areas have little to no water pressure.
By Nir Hasson | Mar. 25, 2014

A rights group has asked the High Court of Justice to order the Jerusalem water company to restore normal water supply to Arab neighborhoods in the city's northeast that have been suffering severe shortages for around three weeks.

The Shoafat refugee camp and three neighborhoods next to it are on the far side of the separation barrier, but all are within city limits and most residents have Israeli ID cards. In the neighborhoods' elevated areas and in other sections there is no water at all, while the other parts suffer from very low water pressure.

Many families have had no choice but to buy water and severely limit their consumption – whether for drinking, showering, laundry or cleaning. As a result, a lawyer for the Association for Civil Rights in Israel, Keren Tzafrir, filed the petition Tuesday on behalf of the residents and the local community administration.

"The water problem is the latest expression, and perhaps the most serious one, of the authorities' neglect of the neighborhoods on the other side of the wall," the association said.

"Educational services, welfare, transportation, garbage collection, infrastructure and even policing – in almost every respect the state authorities are simply absent from the area. The area has no master plan, as a result of which all construction there is without a permit. Even representatives of [water company] Hagihon admit that the water infrastructure is suited for 15,000 people, while the number of area residents is estimated at 60,000 to 80,000."

Unless the court issues an order to resolve the problem, thousands of families will continue to suffer from a lack of water, even though the right to water "has been recognized in Israeli case law as a basic constitutional right," the petition said. The petition also noted the health threat posed by a lack of running water, especially to children and the ill.

Earlier Tuesday, the Jerusalem police's adviser on Arab affairs warned that the water crisis in these neighborhoods could cause unrest in the whole east of the city.

"Court asked to restore water to Arab parts of Jerusalem", Jerusalem Post / Haaretz, 27703/2014, online at: http://mideastenvironment.apps01.yorku.ca/2014/03/court-asked-to-restore-water-to-arab-parts-of-jerusalem-jerusalem-post-haaretz/

BACK TO TOP

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❖ Opposition grows to routing Tel Aviv-area river into Mediterranean Sea

Highway company's flood-control scheme for Ayalon River widely seen as expensive, wasteful, ecologically harmful.
By Zafrir Rinat | Mar. 24, 2014

There is growing opposition to a plan to direct the waters of the Ayalon River into the Mediterranean Sea, as a way to curb flooding. The Israel Water Authority, the Environmental Protection Ministry and Mekorot, the national water company, all argue in favor of alternatives that would provide for the collection and use of flood waters, as does the Zalul environmental organization.

Netivei Ayalon, the company that operates the Tel Aviv-area Ayalon Highway, is promoting a plan to add a fourth lane to the section of the road that parallels the river. That would require a narrowing of the riverbed, which separates the highway's north- and south-bound lanes. To compensate, the company wants to build a flood relief tunnel to accommodate the overflow created by heavy rainfall, and that would drain into the sea near the beach in Jaffa. The 6.7-kilometer tunnel could cost more than 2 billion shekels ($575 million) to build.

The Israel Water Authority discussed the proposal at a meeting held two weeks ago. While representatives of Mekorot and the Environmental Protection Ministry argued for a solution that would allow the overflow water to be used rather than wasted, and though the water authority itself issued a statement to that effect after the session, no decisions were taken at the meeting.

In a separate statement, Mekorot put forward a plan that would eliminate the need for a flood relief tunnel, instead diverting the overflow to the Dan Region Wastewater Treatment Plant, and adding an average of 18 million cubic meters of water a year to the water available for crop irrigation in the Negev.

Officials in Zalul and in the Environmental Protection Ministry expressed concern about possible harm to the beach as a result of diverting polluted run-off into the sea. The ministry calls for expanding existing reservoirs as well as pumping floodwaters into old quarry sites.

"Directing floodwaters into the sea with a tunnel represents an old-fashioned approach, according to which this water is a nuisance that should flow into the sea, while at the same time wasting resources and endangering the marine environment," Zalul wrote in an appeal to the Interior Ministry. The NGO urged the ministry to request that alternatives to the Netivei Ayalon plan be considered.

Netivei Ayalon said in a response that it is evaluating a solution to the flooding of the highway that takes into consideration social and environmental needs, together with the cautious use of perishable resources.

The planning team stresses that the plan to direct overflow into the sea is seen as an emergency solution only, to be used in extreme circumstances.

A multidisciplinary team headed by architect Shamai Asif is examining the use of reservoirs upstream to capture overflow from the Ayalon, as well as use of the planned flood control reservoir in the Ariel Sharon Park at the former Hiriya landfill, east of Tel Aviv. A flood reservoir is also being planned for the campus of the Mikveh Israel Agricultural School, outside Holon. That plan includes an underground drainage pipe that would, in the event of extreme flooding, introduce water into the Mediterranean off the coast of Jaffa, well away from the beach.

"Opposition grows to routing Tel Aviv-area river into Mediterranean Sea" ,Haaretz, 24/03/2014, online at: http://mideastenvironment.apps01.yorku.ca/2014/03/opposition-grows-to-routing-tel-aviv-area-river-into-mediterranean-sea-haaretz/

BACK TO TOP

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❖ World unprepared for climate damage to food security – Oxfam

LONDON (Thomson Reuters Foundation) - A key U.N. report on climate change, due out early next week, will show that the impacts of rising temperatures on food security will be more serious and hit earlier than previously thought, a situation the world is "woefully unprepared" to cope with, aid group Oxfam warned on Tuesday.

"Hunger is not and need never be inevitable. However climate change threatens to put back the fight to eradicate it by decades," the charity said in a **briefing paper** that analysed 10 factors that will have an increasingly important influence on countries' ability to feed their people in a warmer world.

Whether or not measures are taken to help farmers adapt to climate change, median crop yields will decline by up to 2 percent per decade during the rest of the century, while crop demand grows 14 percent each decade until 2050, according to a draft summary of the report from the Intergovernmental Panel on Climate Change (IPCC), seen by Thomson Reuters Foundation. The risks are greatest in tropical countries, due to higher poverty rates and lower ability to adapt, it adds.

While it may be possible to protect crop production with adaptation measures amid warming of around 2 degrees Celsius, in places where local temperatures rise by 4 degrees or more, falling yields and growing food needs will pose "significant risks to food security even with adaptation", says the draft, which is still under negotiation by governments at a meeting in Japan this week.

The IPCC report is also expected to warn of higher and more volatile food prices, said Oxfam, which itself estimates that world cereal prices could double by 2030, with half the increase driven by climate change.

Oxfam found "serious gaps" between what governments are doing and what they need to do to protect their food systems from worsening extreme weather, as well as gradual shifts in temperature and rainfall. It examined 10 areas, giving the world's performance a mark out of 10 for each.

The worst-performing efforts were judged to be international adaptation finance and crop irrigation, followed by crop insurance and agricultural research and development.

On funding for climate change adaptation, Oxfam said rich countries have provided only around 2 percent of the money poor countries need. On irrigation, it highlighted how in drought-prone Niger, Burkina Faso and Chad, irrigation covers less than 1 percent of arable land, compared with 80 percent in California.

Only two of the factors examined - public agricultural investment and humanitarian aid for food crises - scored more than five out of 10.

But the paper also argued that worsening hunger and food insecurity is not an unavoidable consequence of climate change, at least as long as temperature increases stay below 3 to 4 degrees Celsius.

“If governments act on climate change, it will still be possible to eradicate hunger in the next decade and ensure our children and grandchildren have enough to eat in the second half of the century,” Winnie Byanyima, Oxfam International's executive director, said in a **statement**.

POLICY MATTERS

The report gave examples of countries where government policy has improved food security, despite poverty and climate stresses. For example, Ghana and Nigeria are both lower-middle-income countries in West Africa but Ghana has better food and climate adaptation policies. They include social protection coverage, public spending on agricultural research and a greater density of weather stations, which make it more able to tackle climate-related risks.

In Asia, Vietnam has also prioritised things like crop irrigation and access to clean water, helping it achieve higher-than-average food security. The same goes for Malawi in southern Africa, Oxfam said.

"The truth is that policy choices can make a real difference," said Tim Gore, head of policy, advocacy and research for Oxfam's **GROW campaign on food justice**.

"It is not all doom and gloom, it is not all inevitable. What we need is a shift in political will and the funding to back it up," he told Thomson Reuters Foundation.

Yet, despite Oxfam's optimism on the potential for adaptation to prevent climate-related hunger, the charity is also concerned about the limits to what can be achieved if governments fail to curb their greenhouse gas emissions.

The report noted that "irreparable and unavoidable loss and damage to agricultural land and fisheries" is already happening in places like the small Pacific island state of Kiribati, where villagers are being driven inland as fish stocks dwindle and saltwater intrusion harms coconut and taro crops.

"It is clear that if we are to ensure that we, our children, and families around the world have enough to eat, urgent and ambitious emissions reductions are needed now alongside a massive increase in support for adaptation," the Oxfam paper said.

"World unprepared for climate damage to food security – Oxfam", 25/03/2014, online at: http://www.trust.org/item/20140325124123-yzci6/?source=hptop&utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=1232c06538-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-1232c06538-250657169

BACK TO TOP

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❖ Cairo Analyst Says Ethiopia Dam Won't Hurt Egypt

VENTURES AFRICA – A water expert from the AUC University in Cairo has confirmed that Ethiopia's hydroelectric dam will not hurt Egypt's share of the Nile waters. According to the Egypt-based water resource management specialist Richard Tutwiler, the Ethiopian dam will never stop the flow of water downstream to Egypt.

"It is unlikely that Ethiopia will severely choke or stop the flow of water. Ethiopia needs the electricity…and hydroelectric dams don't work unless you let the water through" said Mr. Tutwiler.

The Sudanese government has also supported the Ethiopian dam because "the dam would have minimal impact on its (sudan's) water allotment…and the mega-project's other benefits became clear. "

Water experts have confirmed that the dam is expected to improve flood control, expand downstream irrigation capacity and, crucially, allow Ethiopia to export surplus electricity to power-hungry Sudan via a cross-border link. Some studies indicate that properly managed hydroelectric dams in Ethiopia could mitigate damaging floods and increase Egypt's overall water share. Storing water in the cooler climes of Ethiopia would ensure far less water is lost to evaporation than in the desert behind the Aswan High Dam in Egypt.

Despite these assurances from the international community and water experts, some Egyptian warmongers and politicians have unnecessarily threatened Ethiopia and other upstream African countries. Some Egyptian generals have been seen undercover in southern Somalia and the Ogaden, arming rebels and agitating more anti-Ethiopia sentiment among the public. Analysts say that Egyptian military leaders want to distract the pro-democracy movement in Egypt from domestic problems by diverting their attention to a nonexistent external threat.

Some Egyptian politicians also claimed that Egypt deserves to eternally keep over 90 percent of the Nile even though it contributes less than 1 percent to the Nile. They cite outdated colonial agreements from 1959 signed between Egypt and Britain, which excluded eight out of ten Nile African countries. The Mubarek Cairo regime also took advantage of the civil war in Ethiopia to sign vague agreements in 1993. However, for the first time in history, the majority of Nile basin African countries signed in

2010 the binding international treaty, the Cooperative Framework Agreement (CFA), for the fair and equitable utilization of the Nile River among all countries.

Egypt ignored the 11 years of negotiations that led toward the CFA treaty, which was adopted by all other Nile African countries. Despite threats from Egypt, Ethiopian government has continued the dam construction. Analysts say that Ethiopia's growing population need to utilize the Nile river since it can not depend on erratic rains to produce energy or to feed its people who have already suffered numerous famines over the last few decades.

"Cairo Analyst Says Ethiopia Dam Won't Hurt Egypt", 28/03/2014, online at: http://www.ventures-africa.com/2014/03/cairo-analyst-says-ethiopia-dam-wont-hurt-egypt/

BACK TO TOP

❖ Ethiopia: Egypt and the Nile - At a Crossroad

For far too long, Egypt has been playing nasty against the entire riparian states of the Nile basin. But the Nile water politics have changed since the last three years following the collapse of Hosni Mubarak's regime and Ethiopia's unilateral decision to build Africa's largest dam on the Nile. Now Egypt is standing at a crossroad; making the right decision would be in its own best interest

Zerihun Abebe Yigezaw:

Since time immemorial the Nile remained one of the few transboundary watercourses with no multilateral, basin-wide and inclusive treaty that governs the management of its waters. Nonetheless, a negotiation between all the riparian states (except for Eritrea which stayed as an observer) since the early 2000s resulted in the gradual formulation of the Cooperative Framework Agreement of the Nile Basin (CFA), which was hoped to solve the Nile dispute once and for all. Yet downstream Egypt sturdily opposed the CFA due to one sub-article - 14(b), which is about a non-legal concept called water security. Although Sudan followed Egypt in not signing the CFA, its recent moves radiate signals that the country is ready to revise its previous stand.

Be that as it may, idealists perceived the change in government in Egypt in early 2011 as a dramatic shift in the Nile Basin that will help solve decades old dispute over the use of the water from the world's longest river. That was not to be.

Politicization of water affair Egypt hasn't had an elected president since the July 2013 military coup against the democratically elected President Mohamed Morsi. Whoever is going to be the next president of Egypt, however, the Nile issue will remain the hardest nut to crack for one fundamental reason: Egypt wants to see anything about the Nile through the eyes of its politics.

From the onset, the 1959 controversial agreement between Egypt and Sudan over the use of the Nile was marked by an excessive exercise of arm twisting by Egyptian politicians against their Sudanese counterparts. In the negotiations, which took place after a coup d'état in Sudan in 1958, the Sudanese technical experts had the upper hand when it comes to technical details on the common use of the water.

But their Egyptian counterparts who lacked the technical expertise suspended the negotiation and turned to their president Gamal Abdel Nasser, who resorted to have a telephone conversation with his Sudanese counterpart, General Ibrahim Abboud. The leader of the Sudanese negotiating team signed the agreement, as was stipulated by president Gamal Abdel Nasser, without consulting it with his Sudanese technical experts. The deal was not technical; it was a political decision done by a presidential phone call from Cairo to Khartoum.

Today Egyptian negotiators leave no stone unturned to try to persuade (sometimes pressure) Sudanese and Ethiopian negotiators to take the Nile issue for discussions at the respective Ministries of Foreign Affairs of the two countries. In Sudan and Ethiopia negotiating the Nile issue is primarily the concern of technical experts at the Ministries of water affairs than political maneuvering at their respective Ministries of Foreign Affairs. Unfortunately, not so in Egypt.

New faces new challenges:

In negotiations and discussions the interaction of people is the most important factor in determining the outcome of the discussion. This can best be achieved if the negotiating teams, especially those at the expertise level, were to engage in the discussions without recurrent reshuffles. Alas, on the Nile talks, particularly over the last three years, while the technical teams from Ethiopia and Sudan remained more or less the same people who have been involved in the series of negotiations and discussions, Egypt made it a habit to come up not only with new faces but shifting agendas.

During talks in November and December 2013 and January this year on the Grand Ethiopian Renaissance Dam (GERD) and its impact on downstream countries in Sudan's capital Khartoum, for example, Egypt sent different negotiators who were not picking issues from where they were left in the previous session but afresh. The two Egyptian experts who represented their country during the year long works of the International Panel of Experts (IPoE) on GERD, Dr. Sherif El-Mohammady and Dr. Khalid Hussein Al-Zawahri were not included in the three meetings between Nov. 2013 and Jan. 2014 in Khartoum. This is a grave concern not only to Ethiopia and Sudan but a few Egyptian experts who were heard complaining about it in private.

Principles of confidence building:

Following the decision by Ethiopia to start the construction of the GERD three years ago, in an attempt to defuse growing concerns, the Ethiopian government initiated the establishment of the International Panel of Experts (IPoE) to assess the benefits and impacts of the dam on downstream states. The IPoE, which was composed of ten experts - four international experts and two from each of the three Eastern Nile countries (Ethiopia, Egypt and Sudan), came up with its eagerly awaited recommendations in May 2013, nearly a year after it commenced its investigations.

Although from the start Ethiopia insisted that the project was awarded based on Engineering Procurement Contract (EPC), the first set of recommendation by the IPoE asked Ethiopia to comply with major procedures to be taken during a construction of a mega dam the GERD is.

The Second set of recommendation was for the three countries to carry out further studies on hydrological flow modeling and socio-economic impact assessment. But this can be done only if the three countries agreed to cooperate. In order to implement the recommendation, which the three countries agreed not to make public, three different tripartite meetings were held on 4th Nov. and 8-9 December 2013, and 4-5 January 2014 but with no concrete result so far.

During the first two meetings discussions were made on establishing a committee of 12 experts from the three countries to follow up and implement the recommendations made by the IPoE. However, the third meeting in January this year was clouded by controversy and a tabling of new agenda by Egypt.

Two major issues set by Egypt split the countries in this round of the meeting held in Khartoum, Sudan. First, the Egyptians requested the hiring of a new International Panel of Experts parallel to the 12 committee of the national experts agreed by the three countries in the previous two meetings.

Needless to say it was rejected by both Ethiopia and Sudan as unreasonable and unnecessary. Second, the Egyptian delegation came up with what they called "principles of confidence building" - a list of items in which they requested Ethiopia to accept what they claim is "Egypt's water security." This request, however, was immediately rejected not only by Ethiopia but faced strong criticisms from the Sudanese side.

Egypt's so-called "principles of confidence building" has a number of paradoxical issues. First, the issues they brought amounted to a vague attempt that wanted to bring the CFA from the cold. So far the CFA is signed by six riparian states: Ethiopia, Burundi, Rwanda, Tanzania, Kenya, and Uganda. Of these Ethiopia and Rwanda have already ratified the CFA by their parliaments; parliamentary ratification is expected soon in Burundi and Tanzania; while Uganda's is waiting for presidential decision, which means it is in its last stage.

Although South Sudan has started the process to sign the CFA, its current situation makes its move unpredictable. In the backdrop of this, therefor, Ethiopia cannot discuss the same issue which is accepted by all riparian states except for Sudan and Egypt. What Egypt needs to do is then to sign and ratify the CFA.

Second, bringing the issue to the discussion table was out of the scope and agenda for a meeting called to discuss matters pertaining to the recommendations of the IPoE on the GERD. Third, Egyptian negotiators needed their so-called "principles of confidence building" to be guaranteed on paper while they continue refusing to acknowledge that Ethiopia's effort in establishing the IPoE on the GERD was the best and practical confidence building measure one could think of, not to mention Ethiopia's effort to mobilize other upstream states to delay the ratification of the CFA until after a democratically elected government was established in Egypt. Egypt could have taken the establishment of the Nile Basin Initiative (NBI) in which all riparian states on the Nile cooperated in countless programs as the best confidence (and trust) building mechanism too, but purposely avoided.

Egypt's Article 44: suicidal or provocative?

When a change of regime dawned in Egypt three years ago many hoped a civilian government will take better chances to tackle the Nile problems in general and the dispute on Ethiopia's decision to singlehandedly construct Africa's biggest dam on the Nile in particular: that the collapse of Mubarak's regime would be a chance to amend Egypt's long held inflexible position which repeatedly thwarted a basin-wide cooperation especially in concluding the CFA.

In fact, immediately after the fall of Hosni Mubarak as president of Egypt, the transitional government under Essam Sharaf signaled that the old days were over and the Nile dispute would be solved peacefully to accommodate the interests of all Basin countries. Such hopes were also

propagated during the first few months of the one year reign in power of the democratically elected government of President Mohamed Morsi. Following the July 2013 military coup that ousted Morsi, however, resolving the Nile dispute took several steps back where it remained eclipsed.

Unfortunately, not only the issue of the Nile, but Egypt, too, remained a country besieged by political bickering and instability. The July military coup against the government of Morsi didn't serve the Nile issue either. Now Egypt is preparing to form a new government based on a recently endorsed constitution. Recent developments such as the veneration of one man and the security gap in the capital Cairo and other major cities clears the way for the uncontested scenario of Field Marshal Abdel Fatah Al-Sisi's free ride as Egypt's next president.

In the backdrop of this, Egyptians have recently voted for a constitution, Article 44 of which declares: "The state [of Egypt] commits to protecting the Nile River, maintaining Egypt's historic rights thereto, rationalizing and maximizing its benefits, not wasting its water or polluting it... ".

Egypt's threefold Nile dilemma begins on the reckless inclusion of the phrase in article 44 of "... maintaining Egypt's historic rights thereto... " which, from Egypt's perspective, is defined based on colonial, partial and bilateral "agreements" which allow no water not only for Ethiopia, the source of the river, but also for all upstream states in the Nile.

First, it complicates and makes impossible the ability by the coming government of Egypt to discuss and negotiate anything related to Egypt's right to use the Nile water. The ratification of the CFA by the six riparian states has already made the colonial era agreements obsolete, null and void from upstream states point of view.

Second, Article 44 clearly exposes Egypt's incessant hydropolitical narcissism and its tendency of bullying upstream states. But the justified need by all upstream states to use the Nile water makes Egypt's desperate attempt futile. In fact, as of late, many upstream states see negotiating the Nile issue with Egypt as a waste of time. Third, the so-called "historic right" is a nominal doctrine and is against basic principles of customary international water law - mainly the principle of equitable and reasonable utilization.

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Egypt's exit strategy:

Egypt is now at crossroads and has two choices to make: to get stuck in the old school or accept the new reality in the Nile Basin. It will be in the best interest of the next government in Egypt to find ways of compromising and enhance cooperation on the Nile for win-win gains. This could only be possible if the political elite in Cairo are willing to revise the free falls of the constitution drafting committee, which was led by Amr Moussa who was Minister of the Ministry of Foreign Affairs of Egypt and Secretary of the Arab League, and certainly not a hydropolitics expert.

The first exit strategy should likely be revising Article 44 for its own sake. The second step would be to give enough weight to the science of transboundary watercourses; politicization of the Nile will not help Egypt in anyway under the dynamics of current circumstances.

To this end, it is better if Egypt gives space and proper mandate to competent people at its Ministry of Irrigation and Water than allowing the security, the military and the Ministry of Foreign Affairs a free ride on matters related to the Nile. If the next president fails to craft a scientific strategy, the Nile problem will not be solved and Egypt will remain a captive of its own misdeeds. Posted in: Africa

"Ethiopia: Egypt and the Nile - At a Crossroad",24703/2014, online at: http://allafrica.com/stories/201403250114.html

BACK TO TOP

❖ Ethiopia approves new deal on Nile River dam project

Ethiopia's parliament has approved a measure to push ahead with its Nile River dam project while changing a colonial-era deal that gave Egypt and Sudan majority stake in the great river.

Ethiopia's 547-member parliament unanimously agreed on Thursday to ratify the Nile River Cooperative Framework Agreement, which states that a committee must be established to oversee Nile projects - including the controversial $4.7-billion hydroelectric dam in Ethiopia.

Meanwhile, Egyptian lawmakers fear the new dam will diminish their share of the Nile, which provides the desert nation almost all of its water needs.

Ethiopian Prime Minister Hailemariam Desalegn has vowed that no one will stop the building of the multi-billion-dollar energy project, which is diverting the flow of the river.

A ten-man panel of experts has found that the dam will not significantly affect Egypt or Sudan.

The Nile River Cooperative Framework Agreement was made to replace the 1929 British treaty that awarded Egypt veto power over Nile projects.

In 1959, Sudan and Egypt signed a contract that divided the Nile waters between them, while disregarding the rights of other countries. Egypt faces a water crisis as its population increases.

In the 1960s, the average water share per person was 2,800 cubic meters. Now, the figure has dropped to 600 cubic meters, much below the poverty line, which is 1,000 cubic meters per person.

"Ethiopia approves new deal on Nile River dam project", 24/03/2014, online at: http://www.presstv.ir/detail/2014/03/24/355871/ethiopia-oks-new-deal-on-nile-river-dam/

BACK TO TOP

❖ Ethiopia's Renaissance Dam To Start Generating 700MW By 2015

VENTURES AFRICA – Ethiopia's National Council has announced that the Grand Ethiopian Renaissance Dam (GERD), currently being constructed over the Blue Nile, would start generating 700 megawatts of electricity from 2015.

"By next year, two of the turbines among the 16 will start to generate 375 MW electric power each," Zading Abreha, the National Council's Deputy Director General, said.

Construction of the project, which started in 2011 and estimated to cost $4.7 billion, was awarded to Salini Costruttori SPA, an Italian company that has constructed over 20 dams spread across Africa, Asia and Europe.

Although Ethiopia's Metal and Engineering Corporation (METEC) was awarded hydro and electro mechanical work, installation of all electro-mechanical equipment and supply of generators and turbines was given to Alstom, a French engineering company..

Currently 30 percent complete, $1.3 billion has been invested in the dam which is also expected to ensure and regulate the steady flow of water downstream, preventing flood occurrence in countries like Sudan and Egypt.

Egypt has however raised concerns about the construction of the dam, saying it will restrict the flow of water into the country, thus affecting its citizens, farmlands and livestock. The country asked that construction be put on hold until further studies are conducted, despite an initial study by the International Panel of Experts (IPoE) on Ethiopia's request.

Ethiopia refused on the basis that it is a 'flagship project', but was willing to consider Egypt's proposals on the implementation of the recommendation made by the IPoE report. It said it will not stop the construction of what is considered to be one of the largest dams in the world.

On completion, the GERD is expected to produce 6, 000 megawatts, supplying the electricity needs of the country as well as serving as a green energy hub to other East African countries, delivering clean and renewable energy.

"Ethiopia's Renaissance Dam To Start Generating 700MW By 2015", 25/03/2014, online at: http://www.ventures-africa.com/2014/03/ethiopias-renaissance-dam-to-start-generating-700mw-by-2015/

BACK TO TOP

❖ Kenya master plan for universal access to clean water by 2030

NAIROBI (Xinhua) -- The Kenyan government on Wednesday launched a new blue print to revitalize investments and policy attention to water and sanitation sectors and ensure universal access to these critical services is achieved by 2030.

Principal Secretary at the Ministry of Water James Lopoyetum said the government and development partners will mobilize 14 billion U.S. dollars to implement the national water master-plan 2030.

"The new master-plan outline strategic measures that will enable the country to achieve universal access to safe drinking water and basic sanitation by 2030. This goal has support from top leadership and development partners," said Lopoyetum.

He launched the national water master-plan during the annual water sector conference held in Nairobi to take stock of progress made in achieving universal coverage.

Kenya has reframed national water policies in the light of a new constitutional dispensation and an evolving socio-economic order.

Lopeyetum noted that the national water master-plan borrows from existing policies and legislation to re-engineer the water sector and promote sustainable development in Kenya.

"The ambitious blue print mandates the government to invest in water supply and sewerage infrastructure in order to achieve universal coverage in line with global benchmarks," Lopoyetum said.

Kenya has developed a progressive regulatory and policy framework to revitalize the performance of the water sector.

The PS noted that water sector reforms have attracted foreign direct investments and skilled personnel.

"The overriding objective of this master plan is to encourage resources flow to the sector to enable the government to achieve its constitutional mandate of ensuring access to clean water for all," said Lopoyetum.

A national water master-plan will strengthen sustainable management of the resource to meet rising demands.

The Director of Water Resources, Ministry of Water, John Nyaoro said that key objectives of the master-plan include assessment of Kenya's water resources to determine their allocation.

"Six major basins in the country will be assessed to enable us to devise a mechanism for allocating water resources to critical areas like domestic supply, power generation and irrigation," Nyaoro.

The national water master-plan roots for greater investments in protection of water sources to boost Kenya's resilience to climate shocks.

Nyaoro noted that the blue print recognize serious threats posed to water resources including population explosion and competing demands like agriculture and industry.

"The new water master-plan proposes water saving techniques like drip irrigation, recycling of waste water and investments in droughts and floods management," said Nyaoro.

He added that the national water master-plan supports harnessing of the resource to create green jobs.

"Kenya master plan for universal access to clean water by 2030", 30/03/2014, online at: http://www.coastweek.com/3713-special-report-03.htm

BACK TO TOP

❖ Cambodian PM to attend 2nd Summit of Mekong River Commission

Cambodian Prime Minister Hun Sen will attend the 2nd Summit of the Mekong River Commission (MRC) on April 4-5 in Vietnam's Ho Chi Minh City, the Ministry of Foreign Affairs announced Friday.

The premier will be accompanied by Minister of Water Resources Lim Kean Hor and Environment Minister Say Samal, the ministry said in a press statement.

The summit's theme is "Water, Energy and Food Security in the Context of Climate Change for the Mekong River Basin".

The summit will discuss a number of issues on the opportunities and challenges of the Mekong basin and role of the MRC for sustainable development and regional cooperation to promote sustainable use and development of the Mekong River in the context of growing demand for natural resources for development and of climate change, it added.

According to the MRC, the forthcoming summit will be the most momentous event as heads of the MRC member countries -- Cambodia, Laos, Thailand and Vietnam will revisit their commitments made four years ago on a number of key issues facing the Mekong Basin.

The leaders will discuss, amongst other key priority areas, the best ways in which the MRC can promote its effectiveness and ownership by Member Countries by 2030 and reinvigorate regional cooperation in the transboundary management of water and related resources ahead of the establishment of ASEAN economic community by 2015, the commission said.

Cambodian conservationists last week expressed their concerns over the Laos' 260-megawatt Don Sahong dam development project on the lower Mekong River, saying the proposed dam would pose a serious threat to the existence of the biodiversity on the Mekong River such as rarely dolphin species and fishery resources vital to millions of people in Cambodia and Vietnam.

The World Wildlife Fund (WWF) has urged Prime Minister Hun Sen to call for a moratorium on the dam during the upcoming MRC Summit, saying the dam could threaten the existence of critically endangered Irrawaddy dolphins in downstream Cambodia.

"Cambodian PM to attend 2nd Summit of Mekong River Commission", 28/03/2014, online at: http://www.globaltimes.cn/content/851414.shtml#.UzrofKh_tb1

BACK TO TOP

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❖ Xayaburi dam 30% finished, says Laos

Laos's controversial Xayaburi dam is 30 per cent built, its government has told the *Post*.
Deputy Energy and Mines Minister Viraponh Viravong said the project – which Laos began work on without regional approval in November 2012 – remains on track to be functioning in 2019.

"The project is currently 30 percent complete, and proceeding on time and on budget," Viravong said in an email.

The $3.8 billion dam, on the Mekong mainstream in the country's north, is the first of about 10 dams Laos has planned for the river and which conservation groups warn will decimate Cambodia's fish stocks.

But Viravong defended the dam, saying hydropower "is a natural choice for Laos".

"It's sustainable and can continue to bring benefits to our people for decades to come."

Laos, Viravong added, has over the past 50 years "built an enviable record of achievement in developing environmentally and socially sustainable hydropower projects in accordance with our laws, decrees and globally accepted standards".

But its government has been accused of being a law unto itself. When Laos broke ground on Xayaburi, fellow Mekong River Commission member states Cambodia and Vietnam were still asking it to assess potential trans-boundary effects. Under the 1995 Mekong Agreement, Laos must have the blessing of its co-members before it can build on the mainstream.

Thailand, the fourth MRC member and the country set to buy most of Xayaburi's electricity, has remained relatively quiet about the 1,285-megawatt dam – which is being built by Thai developer CH. Karnchang.

Viravong said Laos would continue with its hydropower vision out of "duty" to overcome poverty and said it had the World Bank on its side.

"The World Bank has recently underscored the wisdom of using large-scale hydropower projects to create renewable energy, spur economic growth and social progress, and alleviate poverty in the least developed countries."

But a World Bank spokesperson in Cambodia yesterday said the bank did not support the Xayaburi dam. In 2010, the World Bank said it would not invest in or finance projects on Mekong's mainstream.

Last May, the bank said it was recommitting to large-scale hydropower development in Southeast Asia, without mentioning the Mekong.

Ame Trandem, Southeast Asia program director for conservation group International Rivers, said steps could still be taken to prevent Xayaburi from causing irreparable damage, but time "is running out".

"There is still essentially one year left to stop the dam, as construction on the Xayaburi Dam's final dam across the Mekong River will begin in February 2015," she said.

"With the Mekong Summit approaching [next month], it's critical that the Mekong countries rise up to their commitments and demand that Laos stop all further construction until … mitigation measures can be proven to work."

"Xayaburi dam 30% finished, says Laos", 25/03/2014, online at: http://www.phnompenhpost.com/national/xayaburi-dam-30-finished-says-laos

BACK TO TOP

❖ DIP recycles 51m m3 of waste water in 10 years

DUBAI – Dubai Investments Park (DIP), the largest integrated commercial, industrial & residential community in the Middle East and wholly-owned by Dubai Investments PJSC, has announced that its energy-efficient sustainability program have helped in recycling over 51 million cubic meters of waste water over the last 10 years.

Over 90 percent of the recycled wastewater, which is treated at the DIP Sewage Treatment Plant [STP], is used for irrigation and landscaping purposes within DIP. Over the last 10 years, DIP has helped save 1.48 million truck trips off the roads to dispose the sewage to nearby STPs, with the total CO2 emissions reduction through this initiative being 777,913 tons.

DIP's integrated sustainable approach has made it one of the most environment friendly developments in Dubai. Over the last 10 years, DIP reduced over 1.25 million tons of carbon dioxide through its energy-efficient sustainability program, with plans to reduce it further in the coming years.

DIP's sustainable environmental approach also optimizes the mobility of people and reduces the average trip distance to commute to work or to go to school. This has avoided 20,000 car commutes on a daily basis outside the DIP premises, which is equivalent to 311,475 tons of CO2 emissions reduction.

Omar Mesmar, General Manager of DIP, said: "Since our incorporation in 1997, we have remained committed to sustainable practices that benefit the DIP community. DIP is one of the largest business and residential communities in the Middle East and our contribution to sustainability has been significant year-on-year. We have consistently raised the benchmark to reach greater heights in our sustainability efforts."

DIP is also one of the green zones in Dubai, with over 20,000 trees planted along the common areas and gated communities of the development, besides landscaping along 70km of road side. It is mandatory for DIP business clients to landscape between 10-20 percent of their plot areas. Plantation

helps to secure and absorb 4,192 tons of CO2 from the atmosphere and makes it a better place to live.

Similarly, DI joint venture company Emirates District Cooling (EMICOOL) provides district cooling to DIP's businesses and households with operating capacity of 52,898 tons of refrigeration. The district cooling plant helped to save electricity by 312.95 million kWh (34 percent less than conventional AC), which is the equivalent of reducing 159,028 tons of CO2. Apart from electricity savings, it also helps to reduce refrigerant leakage to the atmosphere.

Strategically located within minutes from the Jebel Ali Port and the Al Maktoum International Airport at Dubai World Central, DIP is a self-contained city featuring state-of-the-art facilities and world-class infrastructure. – SG

"DIP recycles 51m m3 of waste water in 10 years", 27/03/2014, online at:
http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentid=20140327199952

BACK TO TOP

❖ Water control system that saves 9,200 gallons of water per tree each year makes mid east debut at agrame

The 2014 edition of the region's largest agribusiness and veterinary trade events to commence in Dubai

Dubai, UAE, 24 March 2014: A new water containment system that helps reduce water usage by 9,200 gallons per tree each year, a 92 per cent saving will be launched at AGRA Middle East, opening tomorrow at the Dubai International Convention and Exhibition Centre.
Distributed in the GCC by Germany-based ILS Global, the new system comprises a cone-shaped patented tree guard called Tree T Pee, made from 100 per cent recycled plastic, and is positioned at the base of young trees to reduce water use, fertiliser and fuel consumption, and to promote growth.

Tree T Pee stores the water from the micro jet sprayers into the cone creating a mini-greenhouse around the tree. This greenhouse directs the water and liquid fertiliser to the roots promoting up to a 30 per cent increase in the growth of new trees.

Philipp Mintchin, Founder of ILS Global, said: "On average, a grower is using 10,000 gallons of water per tree each year. When using the Tree T Pee, the water usage goes down to 800 gallons per year, a 92 per cent saving."
Mintchin added "Over 5,000 acres of Tree T Pees have been installed in Florida, USA so far and the growers have seen phenomenal results. This is the first time it's being introduced in the GCC.

"Our primary objective is to help tackle the increasing problem of water conservation in one of the most arid regions in the world and make a difference in the agricultural sector one tree at a time.
"There are many benefits of using Tree T Pee's. They reduce the cost for operation, and they are also environmentally friendly. By encompassing water to where it is needed, growers can save a substantial reduction in water, fuel, fertiliser and herbicide costs."

Richard Pavitt, Exhibition Director for AGRA Middle East, said: "The scarcity of water in dry areas is, and always has been, a major challenge to agricultural production. The U.N Food and Agriculture Organisation reported that except for Europe and North America, agriculture is by far the biggest

user of water, accounting for about 69 per cent of all global withdrawals. The search is therefore on to find novel ways to improve the efficiency of the water used in irrigated agriculture.

"Products like the Tree T Pee are another step towards facilitating the water problems in the Middle East and promoting sustainable agricultural growth in the region."

AGRA Middle East returns with two dedicated industry conferences; the Agribusiness Outlook Forum and the Poultry Outlook Forum. A major highlight of the event is the AgraME Awards, recognising individuals and organisations that have contributed to the growth and development of the agricultural industry with focus on best practices and innovative approach.

The three-day event is held under the patronage of His Excellency Dr. Rashid Ahmad Bin Fahad, Minister of Environment & Water, and is sponsored by platinum sponsor Al Dahra Agriculture and supported by the UAE Ministry of Environment & Water.

AGRA Middle East is co-located with VET Middle East, the leading event for the bourgeoning veterinary industry in the region. The two events are open from 10:00am - 6:00pm daily.

“Water control system that saves 9,200 gallons of water per tree each year makes mid east debut at agrame”, 24/03/2014, online at:
https://www.zawya.com/story/Water_control_system_that_saves_9200_gallons_of_water_per_tree_each_year_makes_mid_east_debut_at_agrame-ZAWYA20140324083529/

BACK TO TOP

❖ World faces looming crises over shrinking clean water supply

With all that is happening with Russia and the Middle East, and with the fracking and pipeline issues in the U.S., the world is preoccupied with a precious liquid asset — oil. At the same time, the world's truly most precious liquid asset is being neglected.

With World Water Day held March 22, with "Noah" just released to North American theaters on Friday, with Blount County drying out from recent rains, let's take a look at some water facts — and action in Washington that could deal with some of our water woes. Here's the data, compiled from public and private sources:

• 1.2 billion people live where water is scarce;

• By 2025, 1.8 billion people will be living in regions with absolute water scarcity;

• 90 percent of power generation is water-intensive;

• 75 percent of all industrial water withdrawals are for power production;

• By 2050, fresh water availability in the Middle East and North Africa will drop by 50 percent;

• Of the world's population without access to safe and clean water, 37 percent live in sub-Saharan Africa;

• 30 percent of Tennessee's streams are of such poor water quality that they cannot support a healthy population of fish and other aquatic wildlife;

• Almost 40 percent of the state's streams are not fit for human recreation.

In Washington, U.S. Rep. John J. Duncan Jr., R-Tenn., and Bill Pascrell Jr., D-N.J, introduced legislation March 13 that would allow local governments to more easily access private funds for water infrastructure projects. The Sustainable Water Infrastructure Act of 2014 removes water and wastewater infrastructure projects from the Private Activity Bond (PAB) volume cap. PABs are a form of financing that allow state and municipal governments to issue tax-exempt bonds to private investors to fund costly infrastructure projects. Congress limits the use of PAB volume annually, although airport infrastructure projects have been exempted from the caps in the past.

According to the Sustainable Water Infrastructure Coalition, raising the PAB cap on water infrastructure projects would leverage $50 billion in private capital investment, create 1.4 million jobs, and add $101.5 billion in tax revenue to federal, state and local governments.

As Duncan, co-chair of the Clean Water Caucus, said: "Much of our nation's water infrastructure is more than 100-years old, and this bill will empower more states and towns to raise the funds needed to address this growing problem. Our nation's health, quality of life, and economic well-being rely on adequate wastewater treatment and access to clean water."

The U.S. Environmental Protection Agency estimates that $682 billion in infrastructure improvements are needed during the next 20 years in order to meet safe drinking water and sanitation standards.

Worldwide, other measures are being taken. In recent years, 3,600 treaties and agreements have been signed to manage water use. It is critical that nations deal peacefully with conflicts over water.

Oil isn't the first precious liquid important enough to fight over. At the confluence of the Tigris and Euphrates rivers 4,500 years ago, the first water war in history occurred. On land that is current-day Iraq.

On land where oil today is a major factor in armed conflict and terrorism. Some irony.

Consider this: Between 2003 and 2009, 117 million acre-feet of fresh water was lost from the Tigris-Euphrates river basin. That war 45 centuries ago happened when a king built canals that diverted water from another city-state. Result: Water War I.

Today, the fresh water loss from the Tigris-Euphrates basin is second only to one other area on the planet — India. Yes, India, where one-sixth of the world's people live and where the population is projected to surpass China by 2025.

Water, water everywhere but not a drop to drink? Not quite. Not yet. But only 2.5 percent of the planet's water is fresh and most of that is trapped in glaciers, and some glaciers are melting into the salted sea.

Water is precious. Water is life. Let's take care of it.

"World faces looming crises over shrinking clean water supply", 30/03/2014, online at: http://www.thedailytimes.com/opinion/our_voice/world-faces-looming-crises-over-shrinking-clean-water-supply/article_e1804ed7-2cc8-5503-9a62-609e52137219.html

BACK TO TOP

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❖ Food and Water Wars

The "warming of the Arctic" could become one of the greatest catastrophes in human history, even exceeding the notoriety of Adolf Hitler and Genghis Khan. Likely, it will impact more people than the combined effect of those brutal leaders. In fact, global warming may eventually be categorized as the greatest threat of all time, even greater than the Black Death's 75-to-200 million dead, circa 1350.

The integrity of Arctic sea ice is essential to prevent the risks of (1) methane outbreak and/or (2) fierce, damaging weather throughout the Northern Hemisphere. Regrettably, the Arctic "sea ice area" registered a seasonal record low on March 10, 2014 at 12.95 million square kilometers. Whereas, 'maximum ice growth' is usually expected in March, not all-time seasonal lows immediately preceding the onset of summer (Source: NSIDC, National Snow and Ice Data Center, Boulder, CO.)

Extreme weather events, as a consequence of the warming Arctic, will likely wreak havoc over the entire Northern Hemisphere, causing severe droughts, freezing cold spells, and widespread flooding (some early evidence of this is already at hand.)

These combinations of extreme weather events have the potential to rival the damage of the great mythical floods. Already, Eastern Europe had a taste of extreme climate change in 2013 when a once-in-500-year flood hit hard, wiping out vast swaths of cropland.

In the future, when shortages of food and water become more commonplace because of extreme climactic change, it is probable that desperate groups of roughnecks will battle for food and water, similar to the dystopia depicted in *Mad Max* (Warner Bros. 1979) the story of a breakdown of society where bandit tribes battle over the last remaining droplets of petroleum.

Over time, climate change is setting the stage for worldwide wars over food & water.

Origin of Food & Water Wars

Research conducted by Jennifer Francis, PhD, Rutgers University – Institute of Marine and Coastal Sciences, shows that Arctic sea ice loss, with its consequent warming, impacts upper-level atmospheric circulation, radically distorting jet streams above 30,000 feet, which adversely affects weather patterns throughout the Northern Hemisphere (Source: Jennifer A. Francis and Stephen J.

Vavrus, *Evidence Linking Arctic Amplification to Extreme Weather in Mid-Latitudes,* Geophysical Research Letters, Vol. 39, L06801, 17 March 2012.)

"Gradual warming of the globe may not be noticed by most, but everyone – either directly or indirectly – will be affected to some degree by changes in the frequency and intensity of extreme weather events as green-house gases continue to accumulate in the atmosphere," Ibid.
Scientists are already cognizant of how badly a warming Arctic impacts subsistence, for example, according to the Arctic Methane Emergency Group: "The weather extremes … are causing real problems for farmers… **World food production can be expected to decline, with mass starvation inevitable.** The price of food will rise inexorably, producing global unrest and making food security even more of an issue."

"The nexus between climate change, human migration, and instability constitutes … a transcendent challenge. The conjunction of these undercurrents was most recently visible during the Arab Spring, where food availability, increasing food prices, drought, and poor access to water, as well as urbanization and international migration contributed to the pressures that underpinned the political upheaval," Michael Werz and Max Hofman, Climate Change, Migration, and Conflict, The Arab Spring and Climate Change, Climate and Security Correlations Series, Feb. 2013.
As for example, Syria suffered from devastating droughts in the decade leading up to its rebellion as the country's total water resources cut in half between 2002 and 2008. As a result, the drier winters hit Syria, which, at the time, was the top wheat-growing region of the eastern Mediterranean, thereby, exacerbating its crisis.

In 2009 the UN and the International Federation of Red Cross and Red Crescent Societies reported that more than 800,000 Syrians lost their entire means of livelihood because of drought (Robert F. Worth, *Earth is Parched Where Syrian Farms Thrived*, The New York Times, Oct. 13, 2010.)

In the recent past, ferocious weather conditions have struck all across the planet, for example: a once every 500-year flood in Eastern Europe, a once in 50-year drought in the U.S. Midwest, the worst drought in 200 years in China, affecting more people than the entire population of North America; the worst flooding in Pakistan in 100 years (a continuous deluge lasting for over a month); the most

costly flash flood damage in Canada's modern history; Syria's drought has been classified as the worst in the history of the Fertile Crescent while Brazil is experiencing it's worst drought in decades, the list goes on, and on, and on.

Merciless weather is lashing out with torrential storms and embedded droughts like never before. No other period of time in modern history comes close.

The reason behind the weather dilemma has everything to do with global warming in the Arctic, which is warming 2-3 times faster than elsewhere on the planet. In turn, the Arctic, which serves as the thermostat for the entire Northern Hemisphere, is disrupting the jet streams, which, as a result, influences weather patterns throughout the hemisphere, causing droughts and torrential storms to become "embedded or stalled" for long duration, e.g., Colorado's torrential downpour and massive flooding in 2013, which was as fierce as superabundant coastal tropical storms but not at all like mid-latitude, middle America storms.

History Repeats

Once food and water shortages become widespread as a result of a more extreme and unpredictable climate behavior, it is highly probable that people all across the planet will become so disgusted and distraught that they'll be looking for blood.

In that regard, history shows that, during such times, desperation overrides prudence. Therefore, hiding behind security gates and armed troops won't make a difference, similar to the late 18th century French Revolution when masses of citizens used pitchforks, stones, and sticks to overwhelm the king's formidable armed forces. At the time, France was one of the mightiest forces in the world, but like toy soldiers, its army fell at the hands of its own citizens.

In the end, civilizations cannot, and have not, survived the forces of desperation born of starvation.

In the case of Paris, two years of poor grain harvests because of bad weather conditions set the stage for revolution. On June 21, 1791 the king, queen, and their attendants fled their Paris residences, whisked away in carriages, as masses of enraged, starving protestors swarmed the city streets.

The forewarnings had been there years beforehand. On August 20, 1986 Finance Minister Calonne informed King Louis XVI that the royal finances were insolvent (because of costly foreign wars- like the U.S. today) Hard times hit (also similar to U.S. today) Six months later the First Assembly of Notables met, resisting imposition of taxes and fiscal reforms (similar to the U.S. right wing today) It was nearly three years later April 27th, 1789 when the Reveillon Riot in Paris, caused by low wages (like U.S. wages today, Wal-Mart, McDonalds) and food shortages (not in U.S. yet), led to 25 deaths by troops.

Thereafter, the public's anger grew to a fever pitch. On July the 14th rioters stormed the most notorious jail for political prisoners in all of France, the Bastille. By July 17th the "Great Fear" had begun to taken command of the streets as the peasantry revolted against their socio-economic system.

One of their prime targets was Queen Marie Antoinette, the Dauphin of the world's most powerful monarchy, whose last spoken words were delivered to Henri Sanson, her executioner, as she accidentally stepped on his foot upon climbing the steps of the scaffold: "Monsieur, I ask your pardon. I did not do it on purpose," before losing her head in front of tens of thousands of cheering Parisians, screaming "Vive la Nation!"

Flash forward in time into the future, and imagine the backlash in the country if food shortages hit America because of the failure of the government to set policies to convert fossil fuels to renewable energy sources. As such, the US could have led the entire world to conversion to renewable sources of energy. As things stand, it is a "missed opportunity."

In stark contrast to America's reluctance, Scotland's energy sources are already 40% renewables and will be 100% by 2020.

Food and Civil Disturbances

According to a landmark study, "Food insecurity is both cause and a consequence of political violence." Henk-Jan Brinkman and Cullen S. Hendrix, *Food Insecurity and Conflict*, The World Development Report 2011.

The link between high grain prices and riots is well established. For example, according to*The Economist* magazine (December 2007), when high grain prices sparked riots in 48 countries, the magazine's food- price index was at its highest point since originating in 1845.

As for a more current situation, the Arab Spring uprisings of 2011 brought political and economic issues to the forefront, but behind the scenes, climate stress played a big role.

According to Marco Lagif of the New England Complex Systems Institute (NECSI) in*Technology Review*, MIT, August 2011, the single factor that triggers riots around the world is the price of food. The evidence comes from data gathered by the United Nations that plots the price of food against time, the so-called Food Price Index of the Food and Agriculture Organization of the UN.

On December 13, 2011, four days before Mohamed Bouazizi set himself on fire in Tunisia, sparking the Arab Spring riots, NECSI contacted the U.S. government, warning that global food prices were about to cross the tipping point when almost anything can trigger riots.

Accordingly, the NECSI study was presented, by invitation, at the World Economic Forum in Davos and was featured as one of the top ten discoveries in science in 2011 by *Wired*magazine.

"Definitely, it is one of the causes of the Arab Spring," says Shenggen Fan, director-general of the International Food Policy Research Institute. As well, it is increasingly clear that the climate models that predicted the countries surrounding the Mediterranean would start to dry out are correct (Source: "Human-Caused Climate Change Already a Major Factor in more Frequent Mediterranean Droughts," National Oceanic and Atmospheric Administration, NOAA, October 27, 2011.)

As for Syria, it is a prime example of the drama of changing climatic conditions and the consequences. The country's farmlands north and east of the Euphrates River constitute the breadbasket of the Middle East. Unfortunately, up to 60 percent of Syria's land experienced one of the worst droughts on record from 2006-11.

In Syria's northeast and the south, nearly 75 percent suffered total crop failure. Herders in the northeast lost 85 percent of their livestock. According to the UN, 800,000 Syrians had their

livelihoods totally wiped out, moving to the cities to find work or to refugee camps, similar to what happened in Paris in the late 18th century.

Furthermore, the drought pushed three million Syrians into extreme poverty. According to Abeer Etefa of the World Food Program, "Food inflation in Syria remains the main issue for citizens," eerily similar to what occurred in France in the late 18th century just prior to it's revolution.

The French Revolution Redux, in America?

As countries like the United States hastily continue their pursuit of policies dedicated to 'energy independence' by fracking, using extreme pressure to force toxic chemicals underground to suck up every last remnant of oil and gas, the warming of the Arctic is elevated, and the jet streams become more distorted, resulting in extremely harsh, deadly and unpredictable weather systems, pummeling the entire Northern Hemisphere.

Eventually, the outcome leads to shortages of food, and like a flashback of 18th century France, people starve or fight.

Post Script: "Those who cannot remember the past are condemned to repeat it," George Santayana (1863-1952), Spanish/American philosopher, essayist, poet, and novelist.

Jack Hunziker is Robert's son. He is a composer and critic of music. He attended Crossroads School in Santa Monica and is an on-and-off student at UCLA.

"Food and Water Wars", 30/03/2014, online at: http://www.ukprogressive.co.uk/food-and-water-wars/article24824.html

BACK TO TOP

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❖ Water sector needs purposeful action to match India's long term needs

A recent UN report on water has rightly underlined the pressing need for proactive policy to avert a likely crisis in the offing in India given population pressures, pollution and the real possibility of long-term climate change.

The report cites expert projections to aver water scarcity and even areas of "severe" stress in the foreseeable future, without sustained reform of India's policy-challenged water economy. And the way ahead is the three-fold task to "hold water where it falls" with extensive rainwater harvesting, tackle widespread water pollution through effective measures nationally, and to put in place norms and incentives for water conservation in agriculture, industry and household usage.

As the National Water Policy, 2012, reiterates, India has more than 18% of the world's population, but barely 4% of the renewable water resources. Per-capita water availability has steadily declined, and is further expected to drop in the future.

And the grim reality is that 90% of the waste water discharged into rivers is not really "treated" at all, even as there is rising unsustainable dependence on groundwater both for domestic and irrigation purposes. Also, despite rainfall concentrated in only a few weeks in a year, we lack sufficient storage infrastructure; its maintenance is also routinely neglected. Hence the vital need for recharge of aquifers and rainwater harvesting.

In parallel, we need guidelines for treatment of municipal waste discharge, along with resources raised and specifically earmarked for the purpose. Further, perverse incentives like free power have encouraged the cultivation of water-intensive crops like paddy in the north-west that, in turn, has led to steadily declining water tables in the region. The next government needs to purposefully walk the talk on water.

"Water sector needs purposeful action to match India's long term needs", 29/03/2014, online at: http://articles.economictimes.indiatimes.com/2014-03-29/news/48684305_1_rainwater-harvesting-waste-water-water-scarcity

BACK TO TOP

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❖ Construct dams to avert disaster

There is disturbing news that there would be 30% deficit of water in Indus River and 20% in Jhelum River during the Kharif season. Apart from water thievery by India through construction of controversial dams, prolonged drought during the winter and criminal negligence in the development and mismanagement of water resources are the causes for water crisis. The nation has recently witnessed Thar tragedy where scores of children have died and hundreds of thousands residents are suffering due to drought. If large reservoirs like Diamer-Bhasha are not constructed on war-footing, other parts of Pakistan could also be affected by the drought. It is criminal negligence on the part of our successive governments that they have not been able to build any major reservoir after Mangla and Tarbela whose storage capacity is shrinking due to silt each passing day. The main argument against Kalabagh dam is that it will result in disharmony among the provinces. But how could we ignore the reality that our four provinces are desperately calling for sufficient water to cultivate their lands and are suspicious of each other on the distribution of water? Isn't it causing harm to intra-provincial harmony?

We have reached a situation where not one or two but a series of dams can save our lands from turning into deserts. How disturbing it would be for our farmers to see their lands uncultivated due to water shortage in a situation when 40-42 million acre feet water of Indus River goes waste in the sea annually, simply because we have no major dam to save this water. India on the other hand has plans to construct 60 dams on Pakistani rivers. In addition to Kashmir dispute, the Indus River Basin has been an area of conflict between India and Pakistan for about five decades. Spanning 1,800 miles, the river and its tributaries together make up one of the largest irrigation canals in the world. Dams and canals, built in order to provide hydroelectric power and irrigation, have dried up stretches of the Indus River.

There is a perception that this is being done under well thought-out strategy to render Pakistan's link-canal system redundant, destroy agriculture of Pakistan, which is its mainstay and turn Pakistan into a desert. Will the politicians on both sides of political divide rise to the occasion and expedite the construction of dams to avert the disaster? Otherwise, not only Punjab but Sindh and Khyber-Pakhtunkhwa also are likely to suffer.

"Construct dams to avert disaster", 28/03/2014, online at: http://thefrontierpost.com/article/85135/Construct-dams-to-avert-disaster/

BACK TO TOP

❖ World faces 'water-energy' crisis: UN

Surging populations and economies in the developing world will cause a double crunch in demand for water and energy in the coming decades, the UN says.

In a recent report, the UN said the cravings for clean water and electricity are intertwined and could badly strain Earth's limited resources.

"Demand for freshwater and energy will continue to increase over the coming decades to meet the needs of growing populations and economies, changing lifestyles and evolving consumption patterns, greatly amplifying existing pressures on limited natural resources and on ecosystems," the report said.

Already, 768 million people do not have access to a safe, reliable source of water, 2.5 billion do not have decent sanitation and more than 1.3 billion do not have mains electricity.

About 20 per cent of the world's aquifers today are depleted, according to the report.

Agriculture accounts for more than two-thirds of water use.

The World Water Development Report, the fifth in the series by the UN Educational, Scientific and Cultural Organisation (UNESCO), is an overview collated from data from scientific studies and investigations by agencies.

It said that ever more freshwater will be needed for farming, construction, drinking, cooking, washing and sewerage, but also for energy production -- 90 per cent of which uses water-intensive techniques today.

The report warns that global water will likely increase by 55 per cent over the next four decades, and by 2050 more than 40 per cent of the world's population will live in areas of "severe" water stress which mostly will be in a region reaching from North Africa, through the Middle East to western South Asia.

Asia will be the biggest hotspot of tension over water extraction with water sources straddling national borders.

Worldwide, energy demand is expected to rise more than a third by 2035 and china, India and the Middle East accounting for 60 per cent of the increase.

In 2010, energy production gobbled up 66 billion cubic metres of fresh water -- more than the average annual flow of the River Nile in Egypt. By 2035, this consumption could rise by 85 per cent, driven by power plant cooling systems that work with water.

Shale deposits and tar sands, driving an energy boom in North America, are especially hefty in their demands for water to force out the precious gas and oil, the report said.

Even so, "they are outstripped by far by biofuels," said researcher Richard Connor, who headed the study.

Renewable sources like solar and wind energy that use far less water are gaining ground, and accounted for about a fifth of global electricity output in 2011, the report said.

But they are unlikely to expand this share significantly if fossil fuels continue receiving the bulk of subsidies, it said.

Oil, gas and coal had subsidies of $US523 billion ($A576.47 billion) in 2011, nearly 30 per cent more than in 2010, compared to $US88 billion for renewables, the report said, citing International Energy Agency (IEA) figures.

Africa, Latin America and the Caribbean have plenty of potential for hydro-energy, which re-uses the precious resource, it added.

Hydro-electric dams have been extremely controversial. Big projects deliver gigawatts of power but critics say they are ecologically damaging and prone to massive cost over-runs.

The review called for a global effort in efficiency gains, pointing the finger at the arid countries of the Middle East where between 15 and 60 per cent of water is wasted through leaks or evaporation even before the consumer opens the tap.

The report also called for smart choices in allocating the trillions of dollars likely to be invested in water and energy infrastructure over the next two decades.

"World faces 'water-energy' crisis: UN", 27/03/2014, online at:
http://au.news.yahoo.com/thewest/business/world/a/22200220/world-faces-water-energy-crisis-un/

BACK TO TOP

❖ Water-Energy Nexus Critical to Future Water Policy

On March 22 in Tokyo, UN-Water will release its World Water Development Report in conjunction with its annual World Water Day 2014 celebrations. This annual event is meant to raise awareness for water – indispensable for human life on earth. This year's theme is "Water & Energy". Despite its apparent importance, the issue of water rarely receives the public attention it deserves, at least in developed countries where water is readily available. This initial lack of coverage tends to transition quickly to extensive coverage when there is either too much water (flooding) or too little water (drought) available.

Nevertheless, water is gaining in importance, highlighted by the increased focus on the issue of water in various meaningful reports. The 2013 OECD's report "Water Security for Better Lives" identifies water security as a major policy challenge, stating that 40% of the world's population will face severe water stress conditions – increasing water demand, water pollution, and water stress – by 2050 and calling on national governments to speed up water management efforts.

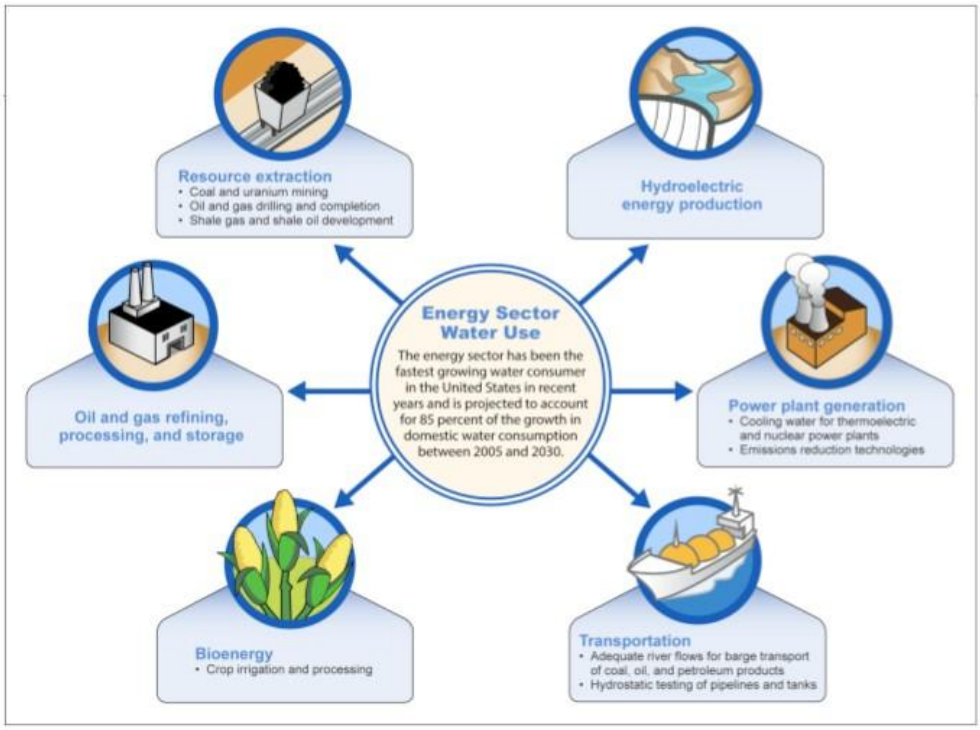
It is important to note that stress is relative to the amount of water available in a certain area. The 2030 Water Resources Group report "Charting Our Water Future" estimates that by 2030 the world's demand for water will be 40% higher than it is today, and more than 50% higher in the most rapidly developing countries. Historic rates of supply expansion and efficiency improvement will only be able to close a fraction of the gap that will likely have widened by that time. The World Economic Forum ranked water crises third among the ten global risks of the highest concern in its 2014 Global Risk report. Finally, the International Energy Agency (IEA) conducted an in-depth analysis of the water-energy nexus identifying ways to use water in energy production and consumption more efficiently and effectively in the chapter titled "Water for Energy: Is energy becoming a thirstier resource" of its World Energy Outlook 2012. Maria van der Hoeven, IEA Executive Director, puts this in a nutshell: "Water availability is a growing concern for energy and assessing the energy sector's use of water is important in an increasingly water-constrained world."

Ms. van der Hoeven stresses that water and energy are inextricably linked and mutually dependent, with each affecting the other's availability, meaning that changes in water availability may significantly impact energy supply. South Africa serves as a cautionary tale. This water stressed country tries to tackle water scarcity and persistent electricity crises simultaneously by allocating

about 2% of its water supply to coal mining and another 2.5% to Eskom, the South African electricity public utility. Eskom is designated "strategic water user" of national importance, according to Shanaaz Nel of Greenpeace Africa. Nearly 98% of South Africa's water resources have already been allocated, leaving "no resilience in the system to respond to extreme weather events, natural disasters or increased energy demands", explains Shanaaz Nel.

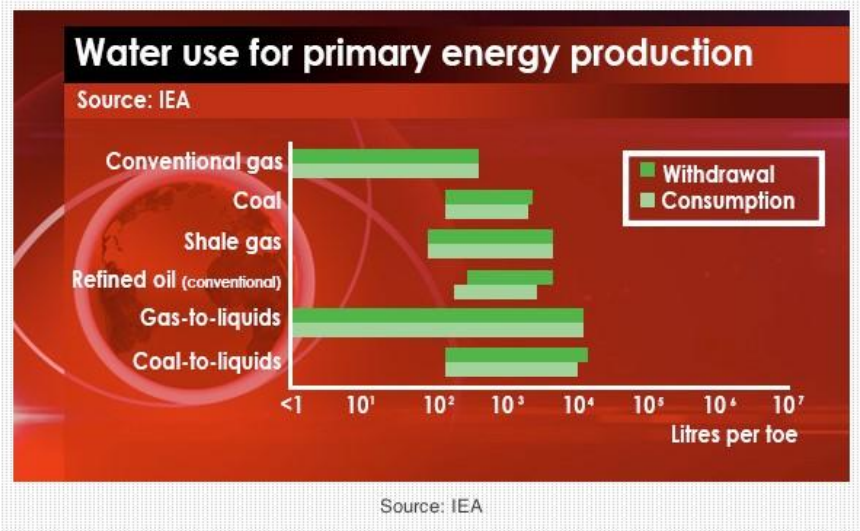
Many aspects of energy production require the use of water to operate as the next chart shows.

Water Use by the U.S. Energy Sector



Sources: GAO summary of information from DOE and Congressional Research Service

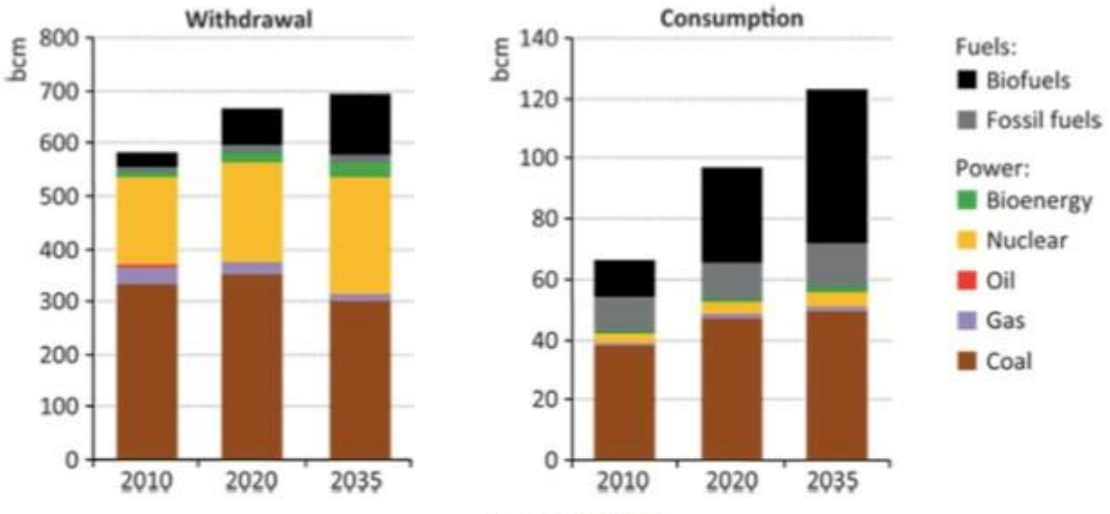
In the EU, energy production – predominantly cooling water – is the greatest source of consumption (44%). In 2010, global water withdrawals for energy use – currently accounting for about 15% of total global water use – came in at an estimated 583 billion cubic meters (bcm), with 66bcm of water (~11%) withdrawn but not returned to its original source, according to the IEA.



Source: IEA

It is crucial to understand the two main ways power generation uses water. In the first case of 'water consumption', water is permanently taken from a source to be either evaporated (for cooling) or transported to another location for use. In the second case of 'water withdrawal', water is temporarily withdrawn from the ground, or a surface source like a river or lake, diverted and then returned to its origin (hydropower). Renewables such as wind or solar PV have the lowest operational and life-cycle water consumption in terms of water use per unit of electricity generated. Interestingly, concentrating solar power (CSP) technology – unlike solar PV cells – requires considerable volumes of water for cooling purposes.

Global Water Use for Energy Production by Fuel Type



Source: WEO-2012

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According to research by the Congressional Research Service, the energy sector is the fastest growing water consumer in the US with projected 85% of domestic water consumption growth between 2005 and 2030. This increase in water use is being driven, at least in part, by shifts to more water-intensive energy sources (shale oil and gas) and technologies. The energy sector's surging demand for water will inevitably compete with rising demand from the agricultural and industrial sectors. Energy infrastructure is highly susceptible to climate change impacts, which could compound the situation, a conclusion drawn by a report by the Government Accountability Office (GAO) released in January 2014.

So what would make a sensible, environmentally responsible and sustainable water management policy? Foremost, policymakers need to take water efficiency into account when designing energy and climate frameworks because climate change can reduce freshwater supplies and lead to uneven "redistribution" of remaining water resources. This in conjunction with pressures from population growth and changing nutritional preferences adds to the challenge. Additionally, a multi-disciplinary approach that recognizes sectoral water use can be highly inter-related is advisable. Diverting water to agriculture could short supplies for local power generation, for example. Effectively dealing with water scarcity requires a an integrated cross-border strategy with systemic solutions to local challenges that remains mindful of the water-energy nexus.

"Water-Energy Nexus Critical to Future Water Policy", 25/03/2014, online at: http://theenergycollective.com/jared-anderson/357376/water-energy-nexus-critical-future-water-policy

BACK TO TOP

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❖ Blue-and-White Water Revolution On Its Way to Several U.S. States

One of the reasons that Prime Minister Netanyahu flew out to California earlier this month was to sign a number of agreements with Gov. Jerry Brown. One area of cooperationbetween the two was for Israel to provide guidance to the Golden State to fight its drought "with water conservation and desalination techniques" developed by Israeli scientists.
But Israel and Israeli companies have been working with a number of other American states.

The Times of Israel reports that in addition to helping California address its water shortage – Israel Desalination Enterprises is building the largest desalination plant in the Western Hemisphere in San Diego – Israeli technology is helping a number of other states and localities meet their water requirements
Akron, Ohio is working with a number of Israeli companies to keep its water supply safe. One of these companies is Mekorot, Israel's national water carrier, which is helping monitor the quality of the city's water. Massachusetts recently held a competition for the most innovative water technology. The competition was won by an Israeli company TACount, that monitors water for contamination. TACount was chosen "as the company that best demonstrates a solid business plan, a strong management team, compelling technology, financing, and customer traction." Illinois, last year, entered into an agreement with Ben Gurion University to improve the state's "deteriorating" water supply.
Because the land of Israel is 60% desert, making the most of water has been a priority of the state. Last year the Times of Israel reported that innovative water management techniques mean that Israel will have a surplus of water for the foreseeable future. Despite suffering from seven years of droughts Israel has sufficient water due to desalination. According to recent figures Israel desalinates over 300 million cubic meters of water a year providing for at least 15 percent of the 2 billion cubic meters it uses annually — though its total desalination capacity is considerably higher. As a result, it has transformed what was previously a question of natural resources into a question of financial ones — leaving open the possibility of increasing desalination production for domestic use in times of drought, but also of increasing production an exporting desalinized water to other countries. It also means that Israeli technology can be used anywhere on earth where money can be put towards solving a water shortage–such as California.

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The advances Israel and Israelis have made in the field of water technology help people across the world.

"Blue-and-White Water Revolution On Its Way to Several U.S. States", 25/03/2014, online at: http://www.thetower.org/0029-blue-and-white-water-revolution-on-its-way-to-u-s-states/

BACK TO TOP

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