



# ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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



ORSAM WATER BULLETIN

03 March – 09 March 2014

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### ❖ Big step on TRNC potable water supply Project

*Turkey close to finishing the long-awaited project that will supply water to the Turkish Republic of Northern Cyprus.*

Two more barrages have been completed in the south of Turkey as the long-awaited potable water supply to the Turkish Republic of Northern Cyprus is about to finish.

According to a statement made by the Ministry of Forestry and Water Affairs' Directorate General of State Hydraulic Works, the 'Alakopru' and 'Gecitkoy' barrage construction was completed for the 'Northern Cyprus Water Supply Project', which will provide the Turkish Republic of Northern Cyprus with water for the next 50 years.

The investment cost of the barrages are close to 80 million Turkish Liras (\$36,6 million) and the project will supply around 130 million cubic meters of water to the Turkish Republic of Northern Cyprus every year.

A pipeline of 22 km length will carry 75 million m<sup>3</sup> of water Alakopru Dam to Anamurium Pumping Station, which connects to under sea pipeline in 1 km distance. Of the 75 million cubic meters water, 37.76 million cubic meters (50.3%) will be used for drinking purposes and the remaining part (49.7%) will be allocated for irrigation.

“Big step on TRNC potable water supply Project”, 08/03/2014, online at: <http://www.worldbulletin.net/todays-news/130530/big-step-on-trnc-potable-water-supply-project>

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### ❖ Turkey resorts to water power with Cyprus pipeline Project

ISTANBUL — In the first such project in the world, Turkey is planning to pump water to northern Cyprus with the help of an 80-kilometer pipeline running under the Mediterranean Sea at a depth of 250 meters. The immediate aim of plan is to provide water for the Turkish sector of Cyprus. But Ankara hopes the technical knowledge gained in the course of the project could enable Turkey to export water to countries in the Middle East as well, potentially contributing to Turkey's power in the region.

Construction of a dam for the project in the southern Turkish province of Mersin on the Mediterranean coast is scheduled to end March 7. The dam is intended to store water from the Anamur River, which flows into the Mediterranean Sea from the Taurus Mountains. If all goes according to plan, the water will be pumped through the pipeline starting in July, coinciding with the 40th anniversary of Turkey's military intervention in Cyprus on July 20, 1974.

"This water will give life to Cyprus," Forestry and Water Minister Veysel Eroglu said in February. The project, expected to cost around 1.2 billion Turkish lira (\$542 million), is designed to bring 75 billion cubic meters of fresh water a year from the southern Turkish river of Anamur to the Turkish sector of Cyprus. About half of the water is to be used for irrigation and the other half as drinking water for the sector's 300,000 residents.

To keep the polyethylene pipeline in place under the sea, engineers will connect it to steel ropes tethered to blocks of concrete on the sea bed. "It is an [original project](#), to be implemented for the first time worldwide," stated the General Directorate of State Hydraulic Works (DSI), Turkey's water agency, on its website.

Called the "project of the century" in the Turkish press, the plan is not the first attempt by Turkey to bring water to the Turkish Republic of Northern Cyprus, a statelet that is internationally isolated and recognized only by Ankara. An earlier scheme to take fresh water from Turkey to the island in giant floating balloons was abandoned when the balloons ruptured.

Like the internationally recognized Republic of Cyprus in the Greek south of the island, northern Cyprus has suffered from severe water shortages for years. The DSI said the pipeline would help boost agricultural output in northern Cyprus by providing quality water for irrigation.

Cyprus has been divided into Turkish and Greek parts since a 1974 coup backed by Greece in Nicosia triggered a subsequent Turkish military intervention. Several attempts to reunite the two sides into one state have failed. Last month, Turkish and Greek Cypriot leaders started [new reunification talks](#) under UN mediation.

Turkish politicians say they are open to the idea of providing water to the Greek part of the island as well. Speaking last month, Deputy Prime Minister Besir Atalay said the water from the pipeline was not only important for Turkish Cypriots but also for Greek Cypriots.

Ankara's ambitions are not limited to Cyprus itself. Rivers on Turkey's southern coast have the potential to provide water for similar projects benefiting countries around the region. Eroglu told *Aksam* in 2012, "We have enough water." Ankara was ready to send fresh water to the Middle East, using northern Cyprus as a springboard.

The idea of providing fresh water from Turkey to other countries in the region was first proposed by then-Prime Minister Turgut Ozal in 1986. His "Water for Peace" project was a plan to supply water to Israel and Arab states through pipelines filled with water from southern Turkish rivers, thereby contributing to peace in the Middle East. The project was never realized because of the ongoing regional conflicts.

Still, water as a strategic resource in the region remains significant, experts say.

"Water is like oil and gas for the region," Veysel Ayhan, director of the International Middle East Peace Research Center, a think tank in Ankara, told *Al-Monitor*. If Turkey is able to contribute to regional stability by providing water, such a development would be beneficial for Turkey itself as the region's biggest economic power with a thriving export industry.

Ankara is also hoping that the Cyprus water pipeline will lead to joint projects in the [energy sector](#). Huge [gas reserves](#) have been discovered underneath the eastern Mediterranean between Cyprus, Syria, Lebanon and Israel. Turkish Energy Minister Taner Yildiz said in February that he hoped that the new negotiations on Cyprus and the water pipeline project would pave the way for the building of gas pipelines.

"Just like we bring water to Cyprus with a pipeline, I think a [gas] pipeline via Turkey to Europe could be built," the minister said.

"Turkey resorts to water power with Cyprus pipeline Project", 06/03/2014, online at: <http://www.al-monitor.com/pulse/originals/2014/03/turkey-cyprus-pipeline-water-power.html#ixzz2vVdgQJqd>

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❖ **Iraq, Turkey and Syria: ‘The Opportunity to Use Water as Something That Unites Us’**

SULAIMANI, Kurdistan Region – In no more than seven to 10 years Iraq will run out of fresh water if the country’s water issue is not taken seriously. Iraq’s water problem is complex and multi-dimensional, with both internal and external factors at play. Water scarcity in Iraq is increasing as a result of greater demand from growth and development, making the importance of reaching an agreement more urgent than ever.

The decades-long failure of Iraq, Turkey and Syria to reach a water-sharing agreement on the Tigris and Euphrates rivers highlights the necessity of thinking outside the box and pursuing different strategies.

Pessimistic echoes that the future will be riddled with conflicts over water have grown more prevalent as scarcity increases. But rather than allowing water to become an instigator of conflict or used as a weapon in politics, great potential exists to use water as an instrument for cooperation.

In the past, the absence of a comprehensive agreement among Iraq, Turkey and Syria on water sharing did not cause friction because there was enough to satisfy the demand of all countries, explained Dr. Monadel Fadel Al-Mahdawi, International Water Resources Division expert in Iraq’s Ministry of Water Resources.

But as the amount of water reaching Iraq and Syria has decreased over the last 40 years due to upstream dams and irrigation projects, the lack of an agreement has caused tensions to rise.

Dr. Mahdawi, speaking at the second Sulaimani Forum at the American University of Iraq Sulaimani (AUIS), noted that different interpretations and various issues of contention among the three riparian parties on the Tigris and Euphrates Rivers have stymied a water allocation agreement.

Mukhtar Hashemi, associate researcher at the Newcastle Institute for Research on Sustainability, highlighted the complexity of Iraq’s internal water issue: “Unrestricted use of scarce water resources characterized by no tariff, water subsidies and weak policies, increasing demands driven by growth

and development, competition between domestic, agricultural, industrial and environmental uses.

“The situation is multi-dimensional and there are many challenges,” he explained. “We must train a new breed of managers, introduce new pricing policies, draft new rules and regulations, establish pollution control and ensure the participation of communities.”

Andrea Cattarossi, a water consultant expert with more than 10 years experience in Iraq and head of MED Engineering, stressed the need for legal and institutional changes within Iraq’s agricultural sector.

Water losses to agriculture are enormous. More than 80 percent of water that flows into Iraq goes towards agriculture, 70 percent of which is lost and can never be recovered.

“The major challenge is to establish more efficient irrigation. With much less water, we need to cultivate the same amount of land,” Cattarossi said.

Regarding external water issues, Hashemi stressed the need for regional cooperation and water demand management.

“We need to emphasize the collaboration between Turkey, Iraq, Syria and Iran via a legal approach and an institutional design that deals with the new realities,” Hashemi noted.

Cattarossi said the first step towards cooperation amongst the parties is to build trust.

“We must build trust among the countries that need to cooperate over water, and we can start building trust by sharing information.”

Cattarossi noted that in the last few years, much effort has been made to reach a full understanding of what is going on.

“Iraq is taking into serious consideration what to do with its water problems. But it cannot do it alone, it needs cooperation with neighboring countries. Time is of the essence and coordination is



most important,” Cattarossi added.

Cooperation amongst riparian countries is vital in order to move forward. But the failure to reach an agreement after more than 30 years calls for a different approach in the efforts to reach a solution.

“We need to change the dialogue in the region from ‘whose water is this’ to ‘how can we cooperate,’” said Azzam Alwash, founder of both the environmental non-governmental organization Nature Iraq and AUIS’s Twin Rivers Institute for Scientific Research. He is also a member of AUIS’s board of trustees.

Alwash stressed the necessity of thinking outside the box.

“We need to think of different ways of doing things. Let’s find ways to compromise and find a solution. We need more than just talk - we need to move the ball forward.”

Alwash explained the potential of using trade as a means to achieve greater regional cooperation, with neighboring countries helping supply each other with what they need.

“Trade is an opportunity. We can’t just negotiate on water in Turkey and win. But if we negotiate on trade, electricity and water, we have a better chance of winning. With increased trade there will be less tension,” Alwash said.

For Alwash, cooperative water resources management is a path to peace. “Where there’s a will there’s a way, and we have the opportunity to use water as something that unites us.”

“Iraq, Turkey and Syria: ‘The Opportunity to Use Water as Something That Unites Us’”, 09/03/2014, online at: <http://rudaw.net/english/kurdistan/09032014>

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## ❖ The Euphrates – Tigris Basin and Water Problem in Iraq Discussed During the Sulaymaniyah Forum 2014

Ministers, bureaucrats, decision makers, journalists and academicians attended the Second Annual Sulaymaniyah (Sulaimani) Forum, of which the theme was “Navigating Challenges in the Middle East”, hosted by the American University of Iraq in the Iraqi province of Sulaymaniyah on March 4 – 5, 2014. The water issue which is of vital importance following oil and natural gas in the Middle East was discussed on the agenda of the Sulaymaniyah Forum 2014 as it had been during the first Sulaymaniyah Forum held on March 12-13, 2013. Senior officials from Turkey, Syria, Iraq and Iran talked over the security, energy, water, environment and investment issues during this year's Forum which aimed to touch on geopolitical dynamics. On the second day of the Forum, water issue was discussed particularly within the scope of the Euphrates and Tigris rivers and as an instrument for cooperation across the region.

Virginia Tice from Nature Iraq Foundation, Azzam Alwash from Nature Iraq, Andrea Cattarossi, Mukhtar Hashemi from NIREs (Newcastle Institute for Research on Sustainability) and Monadel Fadel Al Mahdawi from Iraqi Ministry of Water Resources attended the water session of the forum, also known as the Davos of the Middle East. The issues that came to the fore and discussed during the session can be summed up as follows;

- Above all, planning of water resources in Iraq and its environmental aspect are being neglected in plans.
- There is a 50% water loss stemming from both mismanagement and transfer problems of water in Iraq. (Andrea Cattarossi says there is a loss of 70 percent.) The 87% of water resources in Iraq is used for agricultural irrigation, which the biggest loss of water comes from. Use of modern irrigation techniques in agriculture would make an outstanding contribution to water saving, but there are technical and financial insufficiencies in Iraq in this respect. Iraq needs cooperation and support in order to deal with the water problem particularly in this regard, as well as in general.
- Without measures taken on management of water resources and water saving, a major water problem will prevail in Iraq within the next 7-10 years. In terms of water saving, the public opinion must be informed on the fact that water is not an inexhaustible resource.

- 2-3 percent of water resources in Iraq have been used for oil drilling.
- 2 percent of agricultural lands in Iraq have been lost due to desertification.
- There are major losses in data regarding water resources in Iraq. It is necessary for Baghdad and Erbil to work in coordination to create a consistent data source.
- Three million dollars have been spent to fix the Mosul Dam, and no result could be obtained so far. Experts suggest that such works should be put aside, and new projects must be focused on in terms of time and finance.
- According to the attendants, water use in Iraq's Kurdistan Regional Government (KRG) is twice – three times more than the amount of water used in Europe.
- 40 dams are envisaged to be built in the Kurdistan region. But also integrated management of water resources must be taken into consideration while planning the aforesaid dams.
- There have not been large-scaled plans on rivers and water shortage in the Kurdistan region. Authorities should take lesson from the past. New constitution and reforms are needed on water for developments especially in agricultural sector. While making plans on water, also climate change and its impacts must be given priority.
- The possibility that water could become a political instrument between Iraqi Kurdistan and Baghdad is a concerning situation. While KRG uses water as a political pressure tool during the budget talks with Baghdad, KRG imposes restrictions on water that flows into Baghdad and the south from time to time as they did last week. Another issue mentioned during the session was the hydrogeological link between KRG's highlands that receive the most rainfall and the marshlands located in the south
- Water issue has been associated with the issue of trust between Turkey – Syria and Iraq. The founder of Nature Iraq Azzam Alwash suggested that the questions such as; “who is the owner of water?” or “who uses water most?” should be put aside and regional cooperation must be focused on. Besides, Alwash made another suggestion: He put forward the idea of storing Iraq's waters in Turkey where it is more convenient to construct dams in geographic terms. Furthermore, it was pointed out

that water is not dividing but a uniting factor; and it was asserted that water must be used as an instrument to improve diplomatic relations.

Iraq has used the water issue as a political instrument in its domestic and foreign politics by regarding Turkey as responsible for the water problems prevailing in the country both in the international events and media. Given the aforesaid session that took place on that day, the fact that the specialists in Iraq have been handling the water issue in all aspects with a rational and solution-oriented approach for some time now is a promising development.

“The Euphrates – Tigris Basin and Water Problem in Iraq Discussed During the Sulaymaniyah Forum 2014”, ORSAM, Tuğba Evrim Maden, 05/03/2014, online at:  
<http://www.orsam.org.tr/en/WaterResources/showAnalysisAgenda.aspx?ID=2606>

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### ❖ Will Iraqi Kurdistan resort to shutting off water from the center?

“Water” is a new crisis that lingers in the horizon between the center and Kurdistan region. This crisis is not any less important than that of the budget and oil exportation.

Many discussions are taking place in Kurdistan region to cut off the water that flows to the center from Dukan Dam and Darbandikhan Dam; while many parties refuse to use water to push for political issues.

Water remains an important life-sustaining element as its scarcity leads to the decrease of economic and human activity. Kurdistan’s neighboring regions will undergo these consequences in case there was a real water shortage in Dukan Dam and Darbandikhan Dam.

Dukan Dam impounds the Little Zab River located at 60 kilometers north-west of Al Sulaymaniyah and about 100 km away from Kirkuk. Any shortage in the water of this dam will greatly influence the agricultural regions of Kirkuk; especially if the relevant authorities do not exert any effort to make up for the current lack in water due to the scarcity of rain.

Darbandikhan Dam is located in Al Sulaymaniyah province and works on electricity. Any shortage in the dam water will directly influence the agricultural lands in Kirkuk and Tawz in Salahuddine as well as other regions in Diyala.

Observers consider that it might be impossible to solve the water problem as well as previous crisis such as the budget and the oil exportation; unless the different political parties reach a constitutional compromise.

“Will Iraqi Kurdistan resort to shutting off water from the center?”, 07/03/2014, online at:  
<http://www.alsumaria.tv/news/94380/will-iraqi-kurdistan-resort-to-shutting/en>

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### ❖ New dispute between Baghdad and Kurdistan regarding water crisis

After oil, it is water which is a new crisis that lingers in the horizon between the center and Kurdistan region. This crisis is not at all negligible and should be considered with the same gravity, which is used for considering the oil feuds between Baghdad and Erbil.

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“New dispute between Baghdad and Kurdistan regarding water crisis”, 04/03/2014, online at:  
<http://theiraqidinar.com/news/new-dispute-between-baghdad-and-kurdistan-regarding-water-crisis-242624>

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### ❖ **The Water Problem is Deepening between Iraqi Central Government and Kurdish Regional Government**

Despite the frequent attempts to indicate its neighbouring states as the cause of water shortage in Iraq, it is clear that the main issue is ineffective management of water sources in the country. The lack of good practices in water management has been one of the natural consequences of years of conflict in Iraq, this problem evolved into a new dimension after the American invasion. There are some problems regarding the water management outlined in the 2005 constitution accepted after the end of Saddam regime.

One of the main problems is the regulation, which classifies rivers as main - stream and tributary; and then gives the management of main streams to the Iraqi Central Government whilst the control of tributaries belongs to the Kurdistan Regional Government. It is generally accepted that the planning and management of water sources should be based on the location of river basins; therefore it was inevitable that there would be problems in the aforementioned arrangement due to two different governing bodies' involvement. It seems that the on-going disagreement between Iraqi Central Government and the Kurdistan Regional Government regarding oil export is also being mimicked in their water dispute.

The Iraqi Central Government had asked KRG to release water from the dams under latter's control for irrigation of the agricultural areas in Diyala, Kirkuk, Salahaddin and Baghdad; soon after deciding not to pay in officials' salaries in KRG as a result of the tension regarding oil export. However, this demand was not only declined by the KRG; the General Director of Dams, Akram Resul dismissed their request by saying "It is their (Iraqi central government) problem, not ours".

As a result of the long-term political conflict in Iraq, every means is used as a bargaining chip in order to put other sides in a difficult position and this negative approach unfortunately become a norm in water issues as well.

Another example is from 2014. As a result of maladministration of water resources for years, Iraq has serious water shortage problem alongside serious disputes regarding water quality and quantity amongst regions.

Earlier in the water shortage discussions, Iraqi officials were blaming neighbouring countries, especially Turkey, for excessive usage of water; however, there are recent talks about inconsiderate water consumption of Iraqi northern cities and its adverse effects in the south. It is seen that Basra, the city where Euphrates and Tigris spill out into the Shatt al-Arab, warns its neighbour city Dikhar (Nasiriye) because of the serious problems caused by low water quality and quantity. There were news in the media regarding water disputes amongst cities of Iraq such as the mayor of Basra, Majed Al Nasrawi threatened Dikar with not sending fuel oil, while accusing the activities in Dikar of spoiling the quality and quantity of the water before reaching Basra.

All these indicate the urgency and necessity of holistic water management plan for the whole country in Iraq. It is expected to have similar problems also with the KRG in near future. The KRG's rejection of water release from the Dokan and Darbendikan dams for irrigation in agricultural areas shows the severity of the problem. Many tributaries of Tigris are in the control of KRG. Taking into account the constitutional rights of KRG, we can expect a serious crisis in terms of benefiting from the water resources in the country in coming irrigation season. Another noteworthy point is that despite the Musul dam on Tigris's main stream is not considered as KRG's control, in practice the opposite is the reality. Using water for political purposes in internal politics of Iraq will not only open new areas of conflict; but also calcify existing insecurities among different ethnic groups for years to come.

"The Water Problem is Deepening between Iraqi Central Government and Kurdish Regional Government", ORSAM, Seyfi Kılıç, 28/02/2014, online at: <http://www.orsam.org.tr/en/WaterResources/showAnalysisAgenda.aspx?ID=2603>

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### ❖ Iraq's first coral reef in cold, polluted water shocks scientists

Scientists exploring a cold, polluted, and murky river mouth in southeastern Iraq were shocked to discover what is thought to be the country's first coral reef.

Among nature's most frail ecosystems, coral reefs usually thrive in clear water with ambient temperatures and little salinity, but the recent find by scientists from Germany's Institute for Geology Scientific Diving Center suggests that some reefs are more resilient than previously thought.

Not only is the mouth to the Shatt al-Arab River cold, polluted and turbulent, conditions that are typically unfavorable to coral reefs, but it has also been the site of considerable political instability.

The only waterway in Iraq that empties into the Persian Gulf, the confluence of the Euphrates and Tigris rivers also forms a natural border with Iran, making it of critical strategic importance to both countries.

Wars have been fought over the river, and during the American invasion and subsequent years, it was particularly integral as a means to deliver humanitarian aid and munitions to the interior.

Under these conditions, even the most devout researcher would be forgiven for overlooking the area. But the group led by Thomas Pohl persisted and for their efforts they were rewarded with the discovery of a 2.5 by 4.4 mile Palinurs Rock Reef previously unknown to science, according to Discovery News.

"We were entirely surprised to find a living coral reef under such harsh conditions," lead author Thomas Pohl of Germany's Institute for Geology Scientific Diving Center and his colleagues wrote in the journal Scientific Reports.

While visibility was low at just three feet or less and the research team battled to study the reef, they found a fairly diverse ecosystem with a variety of hardy corals species and sponges.

“The authors identified a number of living stony corals and octocorals (which lack a stony skeleton),” writes Discovery News, “as well as sponges and aquatic mollusks that may compete with the corals for space on the reef — or that may cause the coral structure to erode.”

Like Nature Iraq, the group has struggled to mobilize the international community to take more interest in the region, which is consistently beset with political strife. They hope that this recent find will change that, Discovery reports.

“These habitats urgently need protection, conservation and research, especially given their location in areas of oil and gas exploration...”

“Iraq’s first coral reef in cold, polluted water shocks scientists”, 07/03/2014, online at:  
<http://www.greenprophet.com/2014/03/iraqs-first-coral-reef-in-cold-polluted-water-shocks-scientists/>

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### ❖ Water cost soars by 20 per cent in Iran

The cost of water and sewage services has soared by 20 per cent in Iran - just a week after a steep hike in electricity prices.

The price of gasoline and other energy sources are also now set to increase, pushing up the price of goods and heaping pressure on manufacturers and businesses.

One manufacturer said: "With electricity fees rising, the price of goods and services will increase in a chain reaction. An increase in the prices of electricity and other sources of energy will lead to an increase in inflation. Some citizens are saying a that a 24 per cent increase in electricity costs is in contrast to what is described as a slow pace of increasing energy prices."

"Water cost soars by 20 per cent in Iran", 05/03/2014, online at: <http://www.ncr-iran.org/en/news/economy/16090-water-cost-soars-by-20-per-cent-in-iran>

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❖ **Azerbaijan, Iran develop project to prevent mudslides and floods at border-rivers**

Azerbaijan and Iran developed a project to use common technical rules for conducting shore protection at rivers and building and fixing dams to prevent mudslides and floods at border-rivers, according to Iranian Energy Ministry's Boundary Rivers and Shared Water Resources Department Head, Jabbar Vatanfada.

He said the meeting held in Tabriz discussed construction of dams, conducting shore protection, as well as, the changes in the riverbeds of Astarachay, Bolgarchay and Araz border-rivers.

Vatanfada said that prior to this the mentioned works were carried out in line with the technical rules and standards, which sometimes, harmed the opposite side.

Therefore a joint project was prepared for using common technical rules.

Vatanfada also added that the above-mentioned works provide implementation of common standards in both countries. A joint technical commission was established in order to define and use these standards.

He said the project will be signed after being reviewed by the relevant bodies of both countries.

“Azerbaijan, Iran develop project to prevent mudslides and floods at border-rivers”, 04/03/2014, online at: <http://en.trend.az/news/society/2249088.html>

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### ❖ **The JNF Plan in the Middle East: Water Could Help Bring Peace**

Over the previous three decades, Jewish National Fund (JNF) has worked to help alleviate Israel's past chronic water shortage, primarily through the construction of recycled water reservoirs that have increased the water supply by 12 percent.

While Israel as well as its neighbors face the same problem of water shortage, Israel has become the leader in the region in resolving the local problems of water management. As paving the way to resolving the shortage, Israel's water management can not only be a model for solving the water crisis, but can even help to reduce regional tensions.

The JNF Parsons Water Fund was established to expand upon this vital work. The Fund supports initiatives that address issues of water quality, and trans-boundary challenges, with a focus on recycling, developing alternative water sources, education, stream and aquifer restoration, and research.

One of its unique approaches is to operate largely as a revolving fund, lending capital for water projects and using repayments for future investments. In addition, the Fund identifies projects where its philanthropic contributions can leverage the invested sum by drawing matching funds from public sources.

The JNF Parsons Water Fund is overseen by a 29-member board of directors, each of whom has contributed a minimum of \$100,000. Working with Israeli water and environmental authorities, Keren Kayemeth LeIsrael, water associations, education and research institutions, and other entities, the board is responsible for managing the selection of projects and overseeing implementation. The Fund is named for the late Natan Parsons of Boston, an inventor with over 100 worldwide patents, served as JNF's vice president for water projects and spearheaded the initiative before he passed away.

Some 200 dams, reservoirs and water treatment plants enable Israel to use more of its available fresh water resources, even with one of the lowest consumption rates in the world. JNF scientists have pioneered techniques for drip irrigation and water recycling, freeing up enough water to meet the needs of 1.2 million Israelis each year.

“The JNF Plan in the Middle East: Water Could Help Bring Peace”, 07/03/2014, online at: [http://www.jewishtimes-sj.com/news/2014-03-07/Front\\_Page/The\\_JNF\\_Plan\\_in\\_the\\_Middle\\_East\\_Water\\_Could\\_Help\\_B.html](http://www.jewishtimes-sj.com/news/2014-03-07/Front_Page/The_JNF_Plan_in_the_Middle_East_Water_Could_Help_B.html)

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## ❖ Middle East drought a threat to global food prices

- \* U.N. and experts say Middle East driest in decades
- \* Rain-fed cereal areas in Syria and Iraq hurt
- \* Experts say poor management worsens drought's impact
- \* Increased need for imports will pressure global prices

By Suleiman Al-Khalidi

AMMAN, March 7 (Reuters) - The Middle East's driest winter in several decades could pose a threat to global food prices, with local crops depleted and farmers' livelihoods blighted, U.N. experts and climatologists say.

Varying degrees of drought are hitting almost two thirds of the limited arable land across Syria, Lebanon, Jordan, the Palestinian territories and Iraq.

"Going back to the last 100 years, I don't think you can get a five-year span that's been as dry," said Mohammad Raafi Hossain, a U.N. Food and Agriculture Organisation (FAO) environmental economist.

The dry season has already hurt prospects for the cereal harvest in areas of Syria and to a lesser extent Iraq. Several of the countries under pressure are already significant buyers of grain from international markets.

"When governments that are responsible for importing basic foodstuffs have shortages in production, they will go to outside markets, where the extra demand will no doubt push global food prices higher," said Nakd Khamis, seed expert and consultant to the FAO.

The Standard Precipitation Index (SPI) shows the region has not had such low rainfall since at least 1970.

This was part of the initial findings of a joint technical study on Drought Risk Management undertaken by several U.N. agencies, including the FAO, UNDP and UNESCO, that would be formally published later this month, Hossain said.

Water and agriculture authorities, alongside specialist U.N. agencies, have begun preparing plans to officially declare a state of drought that spreads beyond the Eastern Middle East to Morocco and as far south as Yemen, climatologists and officials say.

Drought is becoming more severe in parts of the Eastern Mediterranean and Iraq, while Syria, having seen several droughts in recent decades, is again being hit hard, said Mohamad Khawlie, a natural resources expert with Planinc, an international consultancy focused on geospatial studies in the Middle East and Africa (MENA) region.

In Jordan, among the 10 countries facing the worst water shortages globally, Hazem al-Nasser, minister of water and irrigation, told Reuters precipitation levels were the lowest since records began 60 years ago.

Even after an exceptionally heavy snow storm that hit the region in mid-December, the kingdom's dams are still only 42 percent full, down from 80 percent last year, officials say.

In Lebanon, where climate change has stripped its mountain slopes of the snow needed to recharge groundwater basins, rain is "way below the average", said Beirut-based ecosystem and livelihoods consultant Fady Asmar, who works with U.N. agencies.

He said the stress on water resources from prodigal usage was exacerbated by the presence of nearly a million registered refugees since the Syrian civil war began in 2011.

Only Israel will not face acute problems, helped by its long-term investment in desalination plants and pioneering water management techniques.

In Iraq and Syria, where most of the country is too arid for agriculture, civil conflict and lack of water storage facilities will add to the hardship of rural communities dependent on crop cultivation and livestock.



U.N.-based field studies show that over 30 percent of households in Iraq, Syria and to a lesser extent the Palestinian territories and Jordan, are connected with agriculture.

"Crop production is going down because of drought, and so in these agro-pastoral economies you are looking at many, many lives that are now affected," Hossain said.

In Iraq, which once boasted the largest tracts of fertile arable land in the region, it is only three years since the last major cycle of drought ended, which covered more than 73 percent of the country.

Extracts from a soon-to-be released U.N.-commissioned study says drought in Iraq will persist, increasing in severity from 2017 to 2026, increasing further the dependence on foreign food imports by one of the top grains importers in the world.

The U.N. study extracts say Turkey, where much of Iraq and Syria's water resources originate, has cut the volume of water flowing into the Euphrates and Tigris rivers by dam construction to meet their own growing domestic needs.

## SYRIA

A poor rain season in Syria has already hit its 2014 wheat outlook in the main rain-fed areas in the north eastern parts of the country, which should be ready for harvest in June and July, Syrian agriculturalists say.

Experts say that even if late heavy rain comes in March, this will not save the rain-fed cereal harvest, which farmers are already resigned to relegating to animal fodder.

"When there is delay in rains, then the cereals will eventually wilt. Annual growth has not been achieved for the rain to come and continue maturity of the stalks," Asmar said.

Crop production in the conflict-torn country that once boasted bumper wheat seasons is expected to decline further.

Syria's wheat production is now pinned on the irrigated sown areas that depend on the Euphrates and underground water, which before 2011 accounted for no more than 40 percent of total annual production.

The drought and war could slash Syria's total wheat output to less than a third of its pre-crisis harvest of around 3.5 million tonnes to just over a million tonnes in 2014. Agricultural experts say the most favourable estimates for last year's harvest did not exceed 2 million tonnes.

Drought that peaked in severity during 2008 and 2009 but persisted into 2010 was blamed by some experts in Syria for the soaring food prices that aggravated social tensions and in turn triggered the 2011 uprising against President Bashar al-Assad.

"Prior to the protests, food costs were soaring. In fact, because of these food costs, the protests were instigated, so this was brought on by drought and lack of planning," said FAO's Hossain.

Economic hardship was aggravated by faltering public subsidy schemes that once efficiently distributed subsidised fertilisers and seeds to millions of drought-hit farmers in both Syria and Iraq, agro-economists add.

Middle-Eastern experts predict more frequent drought cycles in coming years, accompanied by delayed winter rainy seasons that damage fruits by promoting premature flowering and prevent cereal crops growing to full maturity.

"The climate change cycles are now shorter, which means ... we will eventually have less rain and more frequent droughts," Fady Asmar said. (Reporting by Suleiman Al-Khalidi; Editing by Veronica Brown and Will Waterman)

"Middle East drought a threat to global food prices", 07/03/2014, online at:  
<http://in.reuters.com/article/2014/03/07/climate-drought-middleeast-idINL6N0M32KJ20140307>

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

### ❖ Israelis cut off Palestinian refugees' water supply

*Khaled al-Khalidi, vice chairman of the Popular Committee in Shu'fat, said the problem had left hundreds of homes, clinics, health centers, educational institutions, associations and shops without water.*

Thousands of Palestinian refugees in the Shu'fat refugee camp, which lies within Jerusalem's municipal boundaries, have lived without water for several days after an Israeli company cut off the water supply without providing any prior notice or justification.

"I've had no water for the past five days and I don't have money to buy any," Maher al-Sha'ar, a 55-year-old camp resident, told Anadolu Agency on Friday.

"I have five children, in addition to my wife. Soon I will no longer be able to provide water for them," he lamented.

Khaled al-Khalidi, vice chairman of the Popular Committee in Shu'fat, said the problem had left hundreds of homes, clinics, health centers, educational institutions, associations and shops without water.

"Some 23,000 refugees and Palestinian citizens have had no water for the past several days," he told AA.

Al-Khalidi insisted that the United Nations Relief and Works Agency for Palestine Refugees (UNRWA) was responsible for providing the camp with services according to a 1956 convention.

According to the UNRWA website, Shu'fat is the only camp in the West Bank that lies within Jerusalem's municipal boundaries.

Camp residents are entitled to carry Jerusalem identity cards, guaranteeing them residency rights in Jerusalem and making them eligible for certain Israeli social services, including healthcare.

All camps are linked to public water and electricity infrastructure, though not all are connected to the public sewage system.

The Ras al-Khamis, Ras Shihadeh and Al-Salam areas of Al-Quds all suffer from the the same problem.

Jamel Sanduka, chairman of the Ras al-Khamis development committee, said a complaint had been filed against the Israeli Gihon company through the Association for Civil Rights.

The association contacted Eli Cohen, the company's deputy director-general, who denied the existence of any water problem.

Sanduka said they had also contacted members of the Israeli Knesset to put pressure on the company to restore water supplies.

"What Gihon has done is collective punishment for the residents of the area," he told AA.

"They want to create a new reality and force people to receive services from the municipality of occupation," he said.

"And this will be addressed through all necessary legal means," Sanduka added.

"Israelis cut off Palestinian refugees' water supply", 08/03/2014, online at:

<http://www.worldbulletin.net/world/130502/israelis-cut-off-palestinian-refugees-water-supply>

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### ❖ **Three Days, No Water for Some 50,000 East Jerusalem Residents**

Some 50,000 Palestinian residents of Jerusalem have been without water for three days, after their water supply was cut off on Tuesday.

The residents are from the Shoafat refugee camp and the neighborhoods of Ras Hamis, Ras Shehada and Hashalom – all within the Jerusalem municipality, and where a majority of residents having blue Israeli ID cards. However, they are on the Palestinian side of the separation fence.

Water is supplied to the area by Jerusalem's water utility – Hagihon. The water systems were designed many years ago and are not adequate for the needs of the population, which has grown significantly in recent years

Water tanks on the roofs have already been emptied and now peddlers selling jerry-cans and water tanks at exorbitant prices have begun making the rounds.

"We don't have even a drop of water. How is it possible to live like this?" asks Jamil Sanduka, a local resident who promised to organize a protest "of 20,000 people outside city hall and the Knesset."

Ronit Sela, director of a human rights project in East Jerusalem for the Association for Civil Rights in Israel, wrote an urgent letter today to Infrastructure Minister Silvan Shalom: "In a conversation yesterday with Mr. Eli Cohen, deputy director-general of Hagihon, we were told that no problem has been observed in the facilities and measurement devices that monitor the water to the area," she wrote.

"But the reality remains unchanged: Tens of thousands of people, including babies, children, women and the sick, have been left without water. Let us not forget that the right to water is a basic right, and the lack of water has serious implications for the right to life and health."

"This cut-off of water is an especially egregious example of the ongoing neglect of residents who are cut off from the city by the separation fence," Sela concluded.

In its response, Hagihon said: "Water from Hagihon is flowing as usual to the neighborhoods on the other side of the separation fence (Shoafat, Hashalom and Ras Hamis), but the water infrastructure

and sewer and drainage systems in the neighborhoods are not adequate for the size of the population living there and extensive development work is needed to bring the infrastructure up to par."

The company added that "most of the population in these neighborhoods (tens of thousands of people) are not registered customers of Hagihon but still receive a continuous water supply, out of humanitarian concerns, at a cost of more than NIS 10 million per year, paid for by Hagihon.

"Hagihon has warned the Water Authority many times of the urgent need to regularize the funding of the water supply and the improvement and maintenance of the infrastructure in the medium and long term, but the matter has yet to be addressed."

"Three Days, No Water for Some 50,000 East Jerusalem Residents", 07/03/2014, online at: <http://english.pnn.ps/index.php/national/7066-three-days,-no-water-for-some-50,000-east-jerusalem-residents>

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## ❖ Israel Denies 45,000 Palestinians Water

*The Middle East Monitor (MEM) reported it. More on what it said below.*

*Fascists run Israel. Democracy is verboten. Peace is a convenient illusion. Ongoing talks are a sham. Chance for peaceful conflict resolution is ZERO.*

*Militarism defines Israeli policy. Belligerence enforces it. So does state-sponsored terrorism.*

*Human and civil rights abuses are extreme. Arabs are a target of convenience. They're considered subhuman.*

*They're ruthlessly persecuted. Institutionalized racism shows it. Occupied Palestinians bear the greatest cross.*

*They're terrorized. They're marginalized, denied, persecuted and brutalized. Multiple daily neighborhood incursions target them.*

*Illegal arrests follow. World leaders able to make a difference turn a blind eye. Israeli lawlessness is ignored. Media scoundrels are longstanding apologists.*

*They're mindless of Israel's worst crimes. An entire population is held hostage. Every day is Kristallnacht in Palestine.*

*Israeli forces terrorize Palestinians daily. They do with impunity. Anything goes is policy. Gross hypocrisy whitewashes truth.*

*Collective punishment is institutionalized. Peaceful demonstrations are assaulted. Free expression and movement are prohibited. Population centers are isolated. Borders are closed.*

*Normal daily life is denied. Economic strangulation and state-sponsored racism are imposed. So are curfews, roadblocks, checkpoints, separation walls, electric fences, and other barriers.*

*Neighborhood incursions, land, sea and air attacks, bulldozed homes, land theft, ethnic cleansing, slow-motion genocide, targeted killings, mass arrests, torture, and gulag imprisonment reflect daily life.*

*Fundamental civil and human rights are denied. Crimes of war and against humanity repeat without redress. Wanting to live free in sovereign Palestine is called terrorism.*

*Punitive taxes are imposed. Few services are provided. Vital ones are lacking or inadequate. Palestinian lawmakers are imprisoned for belonging to the wrong party.*

*Fishermen are attacked at sea. So are farmers working their land. Trying at the wrong time risks arrest, injury or death.*

Children are used for target practice. They're murdered in cold blood. Some are shot in the back. Most are killed or injured at close range.

Crops and orchards are destroyed. Settlers commit regular attacks. Courts provide no help.

Gaza's seven year siege is suffocating. It's slow-motion genocide. Coverup suppresses what's ongoing. Reality is polar opposite vicious lies.

Netanyahu heads Israel's most extremist government in history. He's a world class thug. He's an unindicted war criminal. His coalition partners are militantly hardline.

They're racists. They're ideologically over-the-top. They abhor peace, stability, equity and justice.

They prioritize occupation harshness. They ruthlessly enforce it. Washington provides full support.

On March 3, John Kerry addressed AIPAC's annual conference. He ludicrously called America and Israel "examples" of "democratic values" to the world."

Both countries partner in each others crimes. Their agenda is imperial lawlessness. Their contempt for human and civil rights is unmatched. They threaten world peace.

"Israel's security is our first priority," Kerry stressed. Washington will counter all boycott attempts, he added.

His so-called peace plan mocks responsible conflict resolution equity. It's entirely one-sided. He lied claiming otherwise.

He's a longstanding Israeli apologist. His Senate pro-Israeli voting record was second to none.

He supports unwavering commitment to a special relationship. He turns a blind eye to Israel's worst crimes.

He once called Jerusalem "Israel's indisputable capital." In 1999, he signed a letter criticizing Clinton for not moving America's embassy there.

He's vying to become Washington's worst ever Secretary of State. His agenda matches the worst of his predecessors.

He's mindless of human suffering. He represents imperial arrogance writ large. He supports war. He deplores peace.

He flaunts rule of law principles. He's an embarrassment to the position he holds. Netanyahu's agenda is openly fascist.

Kerry calls him his good friend. He praised his "courage" and "commitment" for peace he deplores.

Both men represent two sides of the same coin. Rogue leader viciousness describes them.

On March 6, the [Middle East Monitor](#) (MEM) headlined "Israel cuts off water to 45,000 Palestinians."

For nearly three days, Shuafat refugee camp residents had no water. Nor did suburban Jerusalem's Ras Shehadeh, Ras Khamis, As-Salam and Anata.

Two weeks ago, Israeli water company Gihon began reducing supplies. Stopping them entirely followed.

On March 5, Shuafat's popular committee member Khaled Al-Khalidi said 23,000 camp refugees had no water for three days.

The above suburban Jerusalem Palestinian areas had none for 20 days.

Al-Khalidi demanded "UNRWA, the camp's service provider, fulfill its obligations towards the refugees and prosecute the Jerusalem municipality and Gihon to oblige them to return the water supply."

"UNRWA and Jordan signed an agreement in 1956 to provide water service to the Palestinian refugees without charge, and in 1967 the Israeli Civil administration joined the Convention," he explained.

"However in 1988, when Israel tried to cut off the water supply to the camp residents, the refugees prosecuted the company and forced it to return the water supply."

Jameel Sandouqa heads the Ras Al-Khamis development committee. He denounced Gihon's action. Educational and health institutions are paralyzed, he said.

"We addressed the Association for Civil Rights and filed a complaint against Gihon. We also contacted Gihon's Deputy Director General Eli Cohen, but he denied any cut off in the water supply," he added.

He contacted Knesset minister Effie Cole. He asked her to hold an urgent meeting.

He wants Knesset members to demand Gihon restore water to deprived areas immediately.

It "cut off water to the region to force us to receive services from the Jerusalem municipality and impose a new (unacceptable) reality in the region," he said.

One more thing, he added. The IDF closed Shuafat military crossing. It's been this way for three days.

Residents are greatly inconvenienced. They're endangered. They have to circumvent the area to get around.

On February 17, [972 Magazine](#) headlined "Jerusalem's refugee camp: Abandoned by the state," saying:

"Although the Shuafat refugee camp is under the jurisdiction of the Jerusalem Municipality, one look at the lack of basic infrastructure, the sewage running in the streets, and the unsafe conditions reveal that it is part of a different world."

It's one of countless examples of Israeli disdain for fundamental Palestinian rights.

Shuafat refugee camp is "hundreds of light years away from" Israeli Jerusalem areas.

Its landscape is polar opposite. It was established in the mid-1960s. Originally it had 1,500 refugees.

It currently has tens of thousands. Reports differ on how many. They're crammed into far too little space. Living conditions are deplorable.

Access roads are closed. Residents are practically imprisoned. Piles of waste and garbage are everywhere.

Foul sewage smell is horrific. Basic services are lacking. Residents live under conditions free people wouldn't tolerate.

They're deplorable. Imagine forced to live this way. Imagine no other choice. Israel's contempt for Palestinians is palpable. Cutting off camp water reflects its viciousness.

"Israel Denies 45,000 Palestinians Water", 09/03/2014, online at:

<http://www.thepeoplesvoice.org/TPV3/Voices.php/2014/03/09/israel-denies-45-000-palestinians-water>

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### ❖ **Thousands of Palestinian Jerusalemites go without water**

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"Thousands of Palestinian Jerusalemites go without water", 07/03/2014, online at:

<http://www.turkishpress.com/news/393742/>

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## ❖ Jordan Considers Water Rationing After Dry Winter: Official

Jordan's Water and Irrigation Ministry has drawn up an emergency plan to ration water nationwide after the country received 34 percent of average rainfall this season, a Jordanian official said.

The plan, which requires government approval, would restrict water for drinking and irrigation and promote conservation, Saed Abu Hammour, secretary-general of the ministry's [Jordan Valley Authority](#), said in a phone interview today from Jordan. He didn't say when approval was expected.

Abu Hammour said the dry winter and weather changes, including early sandstorms, are "unprecedented" in more than 40 years and have hurt essential crops. "This was totally unexpected," he said.

About 94 percent of Jordan's total area is arid or semi-arid, with an annual rainfall average of 50- to 580 millimeters, according to ministry data.

Jordan's water shortage builds on drought issues in [California](#), in [Brazil](#) and parts of Malaysia, Singapore and Sumatra.

"Jordan Considers Water Rationing After Dry Winter: Official", 04/03/2014, online at: [http://www.bloomberg.com/news/2014-03-04/jordan-considers-water-rationing-after-dry-winter-official.html?utm\\_source=Circle+of+Blue+WaterNews+%26+Alerts&utm\\_campaign=59edbfia45-RSS\\_EMAIL\\_CAMPAIGN&utm\\_medium=email&utm\\_term=0\\_c1265b6ed7-59edbfia45-250657169](http://www.bloomberg.com/news/2014-03-04/jordan-considers-water-rationing-after-dry-winter-official.html?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=59edbfia45-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-59edbfia45-250657169)

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## ❖ Water: Conflict and Cooperation in Israel's Jordan River Valley

The Jordan River runs from the [Sea of Galilee to the Dead Sea](#), the natural boundary separating Israel from Jordan.

“Most of the major rivers in Europe and water, generally speaking, have been used as boundaries between countries throughout history, making water either a source of conflict or a wonderful stage for co-operation,” [former Israeli Ambassador Ram Aviram](#) told The Algemeiner in a recent interview. In Europe, [rivers make up most of the continent's natural and national boundaries](#). The Tagus River separates Portugal from Spain, the Rhine River separates France from Germany, and the Danube River separates Hungary from Slovakia. Indeed, in Northern Europe, Norway, Sweden and Finland are bound by rivers. In Eastern Europe, nearly every country is bound by a river: Estonia, Latvia, Poland, Belarus,

Ukraine, Moldova, Romania, Czech Republic, Croatia, and Bosnia and Herzegovina all imbue rivers with natural authority to mark their national territories.

In the case of the Jordan River, in 1920, the San Remo Resolution designated the land on both banks as a single “[Jewish Homeland](#)” to be held in trust by Britain.

But in 1922, Britain, in deference to French demands, temporarily withdrew the Jewish claim for the Eastern half, which was quickly invaded by [Hashemite King Abdullah I](#), whose family had been dethroned in Mecca, when Arabia became Saudi Arabia. Abdullah was marching towards Damascus to attack the French, who had defeated his brother Faisal at the [Battle of Maysalun](#). Britain convinced Abdullah to stand down, and stay put. The original “[Jewish Homeland](#)” was then divided [into a Jewish state and an Arab state](#), with the Jordan River chosen as the natural boundary between the two.

“Think of all the characteristics of trans-boundary water sources that could become points of conflict: the scarcity, self-interests, the expenses for keeping water clean, or making it available for all purposes to the people on both sides,” he said. “But there's also the mutual interests, the interdependence with the country on the other side.

“It becomes a question of how you use it; the challenge is to make both sides understand the gains possible through cooperation,” Aviram said. “Once the scope for mutual gain is recognized, cooperation in managing a shared water source can actually become a confidence building measure,

leading to greater cooperation between the two sides in other areas. Joint institutions are created to avoid conflicts over the resource, so working together on water can create the ability to cooperate more widely.”

Understanding Israel’s approach to water provides a window to understand the economic, political and ecological situation of the region.

The Mediterranean Sea borders Israel’s fertile coastal plain of “greater” Tel Aviv to the west, and to the east sit the Samarian and Judean mountains, with Jerusalem between the two ranges. While those mountains slope gradually towards the sea, making them hospitable for agriculture and city life, they fall off too steeply on the other side, with Jericho the only major city ever built on that parched land, before reaching the Jordan River Valley.

The importance of the Jordan River Valley as a strategic military asset was conveyed by Israeli General

Allon in the 1970 ‘Allon Plan.’ To protect Israel’s border with the Jordan River, Allon proposed keeping most of the river bank area, connecting it with a belt over Jerusalem, towards Tel Aviv, and offering the Samarian mountains, with include the Arab cities of Ramallah and Nablus, and the Judean mountains, with Hebron, to the Palestinian Authority, which could connect the two separate areas with a highway. For Gaza, at the Southern end of Israel’s Mediterranean coast, Allon called for an Israeli-controlled buffer at the Egyptian border to prevent weapons smuggling into the territory.

In more recent maps drawn for subsequent iterations of U.S. and internationally-brokered peace talks between Israel and the PA, most of the mountainous Samaria and Judea regions, along with the Jordan River Valley, are drawn as a Palestinian state, plus today’s Hamas-controlled Gaza, all the way to the Egyptian border.

Opponents of plans to create a Palestinian state in the middle of Israel point to the narrow 9 miles separating the sea from its proposed border, the vertical ‘Green Line’ on the map, where invading Arab armies halted in the Armistice Agreement of 1949 — basically, at the Western edge of the mountains, looking down over the coastal plane. Indeed, [King Hussein of Jordan said in his auto-](#)

[biography](#), ‘My ‘War’ With Israel,’ that, in 1967, he attacked Jerusalem’s Mount Scopus from that same mountainous position, along the ‘Green Line.’

The short distances in between borders and the geographic advantage of attacking from the highlands would mean that all of the Tel Aviv area – [which holds 70% of Israel’s population and 80% of its industrial base](#) — would be left defenseless from the types of rockets fired daily from Gaza that strike the Israeli cities of Ashkelon and Sderot. Losing control of the Jordan River border would also mean that, in a war scenario, the PA could open the “back door” to allow an aggressor army to attack Israel. In 1973, after a sneak attack when Jews were praying on Yom Kippur, Israel fought Jordan back over the river and won the Sinai from Egypt. [In 1979, in exchange for peace](#), Israel gave the Sinai to Egypt and new borders were agreed.

In 1994, a peace treaty was signed for the Jordan River to once again become the boundary separating Israel from Jordan.

In the Jordan Valley last week, hundreds of Israelis, led by Israeli Interior Minister Gideon Sa’ar, marched in protest to demand that control over the area remain in the hands of the Jewish state.

“We are here with a clear and simple statement — the Jordan Valley belongs to Israel!” Sa’ar said, [according to Israel’s i24 News](#).

“Israel’s security requires strategic depth,” Sa’ar said. “It is impossible to think that Israel’s borders will not be along the Valley. The alternative is that the border will be along Kfar Sava and Netanya, and that is unacceptable.”

Sa’ar spoke directly to Jews living in the Valley: “We are here to strengthen the residents of the Valley in their mission for the Jewish people. Know that communities in the Jordan Valley will remain and thrive for generations to come.”

In the midst of this heated national debate over the Jordan River Valley, Aviram, who was part of the Israeli delegation in the 1993 Oslo Accords attempt to broker peace between Israel and the PA, decided to focus on the Jordan River, itself, leading a group charged with reversing the decades of degradation, pollution and misuse of the precious water resource.

Aviram was on the Israeli team from the Ministry of Foreign Affairs in the 1990s that helped create a joint water committee with Jordan. After he left the Foreign Ministry, where he had been posted as of

Chief of Staff to Shimon Peres and Ambassador to Greece, Aviram turned his focus to hydro politics and water-related issues, becoming a professor in the area at Haifa University, founding member of Israel Desalination Association and member of the board of Waterfronts Israel Water Industry Association. He is principal of consulting company BIT that is the geopolitical consultant for the Rehabilitation of the Lower Jordan River Project.

“The Jordan river suffers for many years in both quantity and quality of water,” Aviram said. “It’s down to about 70 to 100 million cubic meters per year, that’s 7 per cent of its historical flow. It was 1.2 billion a century ago.”

“It happened, not because of bad intentions, but mainly because, in this area, which suffers from a natural water scarcity, the sharp increase in population in all the countries that are part of this ecosystem means there is a tremendous need need for drinking water and water for irrigation,” Aviram said.

As part of the 1994 Israel-Jordan peace agreement, the decision was also taken to work together to rehabilitate the river. While there were “good intentions,” including the creation of a joint water committee, Aviram said that after years of no real progress, Israel’s water authority embarked on a major operation to begin the clean-up and rehabilitation. “The Jordanians, of course, blessed the idea,” he said.

The broad strokes of the NIS 250 million (\$70 million) plan involve improving water quality dramatically, decreasing its salinity by about a third, which is not to the quality of fresh water, but closer than it is today. They will build a major wastewater treatment plant to stop sewage from entering the river, and, based on a successful pilot project in Tiberius, desalinated brackish water will be returned to the river.

Aviram said the quality will drastically improve, but that won’t necessarily mean a greater quantity of water, initially, though it may, later. The focus of the plan is to restore the natural state of the aquatic system, in terms of renewed life of flora and fauna in the water and on the riverbed.

For the people who live along the river banks, the project aims to transform the Jordan from a “front line, a border of hostility” into becoming a “center of life,” Aviram said.

“Because it had been a source of danger, of gunfire from one side to the other, or because of the fear of its infiltration by terrorists, throughout the 1980s, people turned their backs to the Jordan River. We hope to change the perception of inhabitants to make this their front yard, rather than the backyard,” Aviram said. “Instead of looking at the river, people were looking the other way around, so our goal is to bring the river back to its natural place, as the center of life.”

Aviram led the creation of a master plan that complements the river clean up with a look towards new land uses along the Jordan River Valley.

The first phase contemplates cleaning up the intersection of the Yarmouk and Jordan Rivers, and “everyone

downstream will enjoy it.” The project is coordinated very closely with the Jordanian’s Jordan Valley Authority, as the river is under its jurisdiction.

The plan also calls for a joint Israel-Jordanian industrial zone by the Sheikh Hussein border crossing, which has seen a sharp increase in traffic from Jordan as its Northern commerce routes are avoided because of the Syrian war. The commerce element is complemented by an even more ambitious plan to invest NIS 3 billion (\$850 million) to extend the Haifa Railway to the Jordan Valley along the old Ottoman Railway route, which would connect the two points in 40 minutes.

The rehabilitation plan calls for the creation of low-intensity eco-tourism, taking advantage of the bi-annual migration pattern, which sees 500 million birds cross the Jordan River as they head from Europe to Africa each Winter and return in the Summer. Aviram said he envisions “slow tourism that does not change the landscape; we’re not talking mega hotels, but small inns, with families on bikes and hiking along the river, listening to nature.”

The plan even includes the “Peace Park” that was included, but never built, though promoted both by governments and NGOs, including ‘Friends of the Earth Middle East,’ in the 1994 peace treaty. The park would be a point of encounter between Israelis and Jordanians.

The plan is being financed entirely by Israel, while other donor countries and international organizations are being courted to offset part of the costs.



If successful, the rehabilitation of the Jordan River would bring that part of Israel's water ecology to the high levels enjoyed everywhere else in the country.

Fifty years ago, Israeli farmers stopped flooding their fields to irrigate their crops, opting for the much more efficient drip irrigation technique that Israel has since exported around the world.

Israel also practices a “waste not, want not” philosophy in treating household sewage, transforming 80% of it — the highest ratio in the world — into clean effluent that is used to irrigate crops. Aviram said the treated wastewater can get to between 97 and 99 per cent purity, certainly high enough for irrigation use.

Israel relies on three aquifers under the Judean and Samarian mountains and a large fresh water lake for about a third of its drinking water needs, with desalination plants along the Mediterranean providing the balance. Treated wastewater irrigates half of its crops.

As Ethiopia, Yemen, Turkey, and Jordan brace for tremendous water shortages forecast in the coming decades, Israeli ingenuity has truly made its deserts bloom.

[Seth Siegel](#), a U.S.-based brand licensing expert, corporate investor and Jewish leader, wrote three Op-Eds, published in the LA Times, the Wall Street Journal, [and the New York Times](#), over the past month, to draw attention to Israel's water miracle, which he is writing a book about.

“In researching Israel's water resource management, what you could describe as abundance now was because of wise public policies and technological ingenuity,” Siegel told The Algemeiner. “It is a remarkable story of how Israel overcame the challenge of the land and severe drought to build a dynamic, modern economy — all of that began with understanding that most precious resource in a desert, water.”

Unfortunately, Israel's careful approach to water management was never embraced by the PA.

[In a report for the Begin-Sadat Center for Strategic Studies](#) that was published last Monday, Haim Gvirtzman, Professor of Hydrology at the Institute of Earth Sciences at the Hebrew University, member of the Israel Water Authority Council and long-time adviser to the representative of the Government of Israel to the Israel-PA Joint Water Committee, described a litany of water abuse offenses and a refusal to accept Israeli help.

According to Gvirtzman's report, the PA has refused to build sewage treatment plants, desalination plants, to use treated effluent for irrigation. He also mentions basic things, like allowing leaky pipes to fester and still use flooding to irrigate their fields. Unauthorized wells — some 250 — have been drilled into the underground aquifer, which, though yet unfounded, raises the specter of well poisoning which scares Israelis. Indeed, the underwater aquifer is a shared water resource, again, “a source of conflict” or a “stage for cooperation.”

In Gvirtzman's opinion, “The sum total of the situation... is that the Palestinian Authority is using water as a weapon against the State of Israel. It is more interested in reducing the amount of water available to Israel, polluting natural reservoirs, harming Israeli farmers, and sullyng Israel's reputation around the world than truly solving water problems for the Palestinian people.”

“The Palestinians are not interested in practical solutions to address shortages,” Gvirtzman wrote, “rather, they seek to perpetuate the shortages, and to blame the State of Israel.”

In Siegel's recent New York Times Op-Ed, he noted an unlikely “precedent for Israel's helping its neighbors with water.”

*“Before 1979 —around the time it began to adopt technologies and policies that led to its current water abundance —[Israel was Iran's partner](#) in developing its national water resources.”*

*“Beginning in 1968, a desalination company owned by the Israeli government built dozens of plants in Iran. These are now aging, while Israel continues to innovate... Cooperation with Iran abruptly ended with the Islamic revolution. Indeed, the Israeli team of water experts was on one of the last direct flights from Iran to Israel in 1979.”*

*“That cooperation began in 1962, after a severe earthquake in the Qazvin region of Iran killed more than 12,000 people. The earthquake collapsed a chain of wells that engineers had drilled in a qanat, or tunnel, style. Hundreds of thousands were at risk from lack of drinking water. Israel flew in teams of drillers. New water supplies were identified, and a series of artesian wells were drilled. The drilling was such a success that Israel's water engineering company, today a private enterprise, was hired to identify and gain access to underground resources elsewhere in Iran.”*

Siegel, who attended a private presentation by Aviram in New York this month, said the Jordan River Valley rehabilitation plan, if funded as Aviram has envisioned, “could vastly improve the quality of the water in the river, and be a win for the environment, for farmland in need of high-quality irrigation and, of course, for Israel and its neighbors.”

“The Red Sea–Dead Sea pipeline that got blessed in January would be a good model,” Siegel said, referring to the deal signed by Israel, Jordan and the PA at the World Bank, in Washington, D.C. [to build the Two Seas Canal](#), which would bring water from the Red Sea into the Dead Sea to prevent it from further evaporation, and build a desalination plant to produce more fresh water for all.

“The more you can weave together the ecologies and economies of the parties, the more likely they will find other ways to work together,” Siegel said. “Peace may not come from politicians, but it may come from economics. Working together is the best confidence-building measure. Water is a great vehicle for that.”

“Water: Conflict and Cooperation in Israel’s Jordan River Valley (ILLUSTRATED)”, 03/03/2014, online at: <http://www.algemeiner.com/2014/03/03/conflict-and-cooperation-over-water-in-israels-jordan-river-valley/>

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### ❖ Israel Offers to Mediate Ethiopia-Egypt Dam Row

ADDIS ABABA – Israeli Agriculture Minister Yair Shamir has voiced Israel’s readiness to assist Egypt and Ethiopia reach agreement over the latter’s construction of a multibillion-dollar hydroelectric dam on the Nile River.

According to Ethiopia’s state-run news agency, Shamir made the remarks at a Thursday meeting in Addis Ababa with Ethiopian Prime Minister Hailemariam Dessalegn.

The agency did not specify how Israel intends to assist both countries in ironing out their differences over the dam.

Relations between Ethiopia and Egypt soured last year over construction of Ethiopia’s Grand Renaissance Dam on the upper reaches of the Nile – Egypt’s main source of water.

The controversial project raised alarm bells in Egypt, the Arab world’s most populous country, which fears a reduction of its traditional share of Nile water.

Water distribution among Nile Basin states has long been based on a colonial-era agreement granting Egypt and Sudan the lion’s share of the river’s water.

Addis Ababa insists the new dam will benefit downstream states Sudan and Egypt, both of which will be invited to purchase electricity thus generated.

Ethiopia’s Foreign Ministry, for one, welcomed Israel’s offer.

“Any country like Israel may raise such idea and Ethiopia appreciates this,” Jemal Beker, director of Middle East affairs at the ministry, told Anadolu Agency.

“Israel Offers to Mediate Ethiopia-Egypt Dam Row”, 08/03/2014, online at: <http://www.tadias.com/03/08/2014/israel-offers-to-mediate-ethiopia-egypt-dam-row/>

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### ❖ **Waterways brings Israeli tech to a thirsty Africa**

The focus is ‘soft’ technology — decentralized, simple to use and maintain, and consuming little energy.

Ask any African who lives off the land, and they’ll tell you that water is life. But when the wells and rivers dry up, or become so polluted or full of disease that it kills their children and livestock, water can also be a great cause of sorrow.

Finding her mission in water, former Israeli diplomat Ornit Avidar is taking Israel’s “soft” water technology solutions — decentralized, simple to use and maintain, consuming little energy — and applying them all around Africa. Letters of intent are signed, companies have been chosen and projects are just beginning to roll out.

Avidar built connections and experience as a diplomat for Israel’s Ministry of Industry and Trade, and in high-tech when she was the CEO at Delta Three Israel, the first Internet telephony company later traded on NASDAQ.

Her current company, Waterways, is a channel for Africans to access Israeli technology and make it work for their lives. While she recognizes the importance of non-profits in Africa, she thinks it is time to update the model with sustainable businesses focused on the bottom line.

One of the companies she is working with is SunDWater, which cleans water in off-grid locations using condensation made from solar rays. Africans in remote locations know about the technology and are asking for it, she says.

#### **Where have all the water-tech projects gone?**

Around six years ago, Avidar started researching clean-tech and water, and saw that water solutions for rural areas have gone missing.

“When we started looking at the issue of water in rural areas, the most confounding statistics popped up,” she says.

“We found that some 50 percent of water projects in rural areas simply don’t exist after one year. For me, this is dollars going down the drain. If for each million dollars of funding, a year later half of that is gone, then there is no way that we are going to see results. This is not economical and not acceptable, and I thought, what we can do about that?”

She then started devising a comprehensive methodology that can help project managers not only get projects, but keep their projects working and running from day one. “We integrate the appropriate technological solutions with social ones,” she says.

And this is the launching pad she calls Waterways. Her models include VIC, or Village Income Center, which is a way to integrate soft water and support technologies into the livelihoods of villagers.

Life and Water Development Group Cameroon, a non-governmental organization that does water projects with groups like Engineers Without Borders, is cooperating with Waterways on the VIC, which has already started its pilot stage and is in a feasibility study now.

Another key partnership is with Water and Sanitation in Africa (WSA), which has never before partnered with any country outside of Africa. The Pan-African WSA represents 36 governments, and is already doing “fantastic projects,” Avidar says. So far, WSA has worked with five Israeli companies, totaling some \$5 billion in transactions.

“They loved our concept in Israel as we went from water scarcity to over-capacity. ‘If you want it too, we can do it,’” Avidar told them.

She has 12 letters of intent signed by various governments in Africa. Israeli companies to be involved in deal flows, in addition to SunDWater, will include water resources management company Tahal and Anyway Solutions, a global leader in providing soil stabilization products to the infrastructure and development sectors.

She recognizes that in Africa, deals proceed more slowly than in the West: “There is a process in Africa. Things take time. You can’t get around it,” she says.

Waterways is based in Shores, west of Jerusalem, and employs four people. Founded in 2010, it is bootstrapping its way into Africa. “Obviously, we would love to get funding. Some see the use of soft solutions as not fundable, but that doesn’t deter us. We’re there,” says Avidar.

“Waterways brings Israeli tech to a thirsty Africa”, 03/03/2014, online at: <http://israel21c.org/environment/waterways-brings-israeli-tech-to-a-thirsty-africa/>

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### ❖ Egypt irrigation minister denounces Ethiopia's 'obstinacy' on dam

Egypt's Irrigation Minister Mahmoud Abdel-Muttalib denounced on Monday what he described as Ethiopia's obstinacy towards building its Grand Renaissance Dam, MENA reported.

Ethiopia's project is a \$4.2 billion hydroelectric dam on the Blue Nile, one of the main tributaries of the Nile. It is a source of concern to Egypt, since it is still undetermined how it will affect Egypt's Nile water share, the country's main source of potable water.

In talks last January between Egypt, Ethiopia and Sudan, negotiations hit a dead-end, with MENA reporting that Ethiopia refused to discuss the terms of "confidence-building measures," which Egyptian officials say must be changed in order to avoid reduction of Egypt's Nile river water share.

Abdel-Muttalib, who retained his position in Egypt's [new interim cabinet](#), said Egypt's Nile water share is a "red line" that Egypt won't allow to be crossed.

He reiterated that the country encourages development in Ethiopia, without harming Egypt's water rights.

On Saturday, a spokesman of the government-owned Ethiopian Electric Power Corporation reportedly said some 32 percent of construction of the Ethiopian Grand Renaissance Dam has been completed, with efforts intensifying to complete the rest.

Spokesman Miskir Negash said construction of the dam has been ongoing "day and night," adding that the dam has so far employed 7,000 people.

"Egypt irrigation minister denounces Ethiopia's 'obstinacy' on dam", 03/03/2014, online at:

<http://english.ahram.org.eg/NewsContent/1/64/95794/Egypt/Politics-/Egypt-irrigation-minister-denounces-Ethiopias-obst.aspx>

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### ❖ Ethiopia's Dam Project to be Energy Hub of East Africa

Ethiopia has always been the major contributor to the Nile, with its Blue Nile feeding the rainfall from the Ethiopian Highlands to the wider Nile downstream. Since the government began construction of the Grand Ethiopian Renaissance Dam (GERD) in 2011, with the aim of generating 6,000 MW of electricity, the project has attracted attention from media outlets.

The project was awarded to Salini Costruttori SPA, an Italian company that has built more than 20 dams in Europe, Asia and Africa, including the Gilgel Gibe II and Tana Beles dams in Ethiopia, and is currently constructing the on-going Gilgel Gibe III dam. The electro – and hydro- mechanical work at GERD is being undertaken by Ethiopia's Metal and Engineering Corporation (METEC), while Alstom, a French engineering company, will supply turbines and generators and supervise the installation of all the electro-mechanical equipment for the hydro-power plant's consulting work, carried out by a joint Italo-French Engineers company.

The primary objective of the GERD project is the generation of electricity. It will enable Ethiopia to completely cover the country's internal power needs. These have been growing at an average rate of 25 percent a year. A reliable and affordable source of energy is a fundamental need not just for the well-being of the population, but also for the economic growth and poverty-reduction efforts being undertaken by the country.

Many rural communities in Ethiopia still do not have the benefits in health and quality of life provided by electrical services, such as lighting or refrigeration. Ethiopia also aspires to be the green energy hub of East Africa, delivering clean and [renewable energy](#) at cost value to neighboring countries. It has already signed contracts to export electricity to Kenya, Djibouti and Sudan.

According to various studies, a one unit percent increase in energy supply can increase economic growth by at least 1 percent. On that basis, when GERD begins operations, the national economy will increase by an additional 4 percent. This, in turn, will provide a catalyst for mutual development and interdependence, helping create long-lasting peace between countries throughout the region.

However, the benefit of the GERD is not restricted to power supplies. The dam will regulate the water and ensure a steady flow throughout the year, preventing the occurrence of floods downstream in Sudan or Egypt. Equally, GERD will hold back a major portion of silt and sedimentation. Over the years, this has rendered dams located in downstream countries much less effective, causing them to lose their water storage and electric power generation capacities.

Indeed, this had meant both Sudan and Egypt have had to allocate huge sums to infrastructure maintenance, including replacement of turbines and dredging of clogged irrigation channels. Another benefit is that the topography of GERD's location and the fact that the reservoir is to be built in a deep gorge will help minimize the water's direct exposure to sunlight and reduce evaporation loss by up to 4 billion cubic meters annually. This, of course, means there will be significantly more water available for downstream countries to use.

"Ethiopia's Dam Project to be Energy Hub of East Africa", 04/03/2014, online at:  
<http://atlantablackstar.com/2014/03/04/ethiopias-dam-project-energy-hub-east-africa/>

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### ❖ Tanzania makes its stand clear on Nile

*DAR ES SALAAM, Tanzania - The government wants the Nile waters to shared by all countries it passes through.*

The affirmation was made last week by President Jakaya Kikwete when having talks in Dar es Salaam with Egyptian Envoy to the president, Foreign Minister Nabil Fahmy who had been sent by Egyptian Interim President Adly Mansour to present a message to President Kikwete on strengthening various matters of bilateral relations between the two countries.

After their talks, President Kikwete commented on the use of Nile waters stressing the position of Tanzania that it was the right of every country where the river flows through to use that water for its development.

“All countries where the river flows , in one way or another, have the same rights to use the river water for their country’s development,” this is Tanzania ‘s position, said President Kikwete, adding that he believes in fair use of water in all countries where the river flows.

Previously Egyptian Foreign minister, Mr. Fahmy had told President Kikwete about the importance of the Nile river in Egypt, stressing that his country, Egypt, gets rains three days only on average per year.

“All the water we use comes from the Nile river. So, you can understand the importance of the river for fairness and prosperity of our country,” he noted. Egypt depends on the Nile for almost 95% of its water.

Egypt has a natural historical right on the Nile river, and principles of its acquired rights have been a focal point of negotiations with upstream states.

The fact that the right exist means that any perceived reduction of the Nile water supply to Egypt is tampering with its national security and thus could trigger potential conflict.

There have been occasions when Egypt has threatened to go to war over Nile water.

Already one of the Egyptian online, Ahram Online has quoted President Kikwete as saying Nile Basin countries should consult and decide on a mutual agreeable arrangement prior to the construction of any dams that impact several countries.

The online was reporting the visit of the Egyptian Foreign Minister Mr. Fahmy to Tanzania after he met with President Kikwete.

“The Tanzanian president was understanding on the situation and stressed that no country should suffer or be harmed from the consequences of the Renaissance Dam,” Foreign ministry spokesperson Badr Abdel Ati was quoted.

President Kikwete’s stand on Nile River was utilization comes at a time when there is moving crisis over the Grand Renaissance Dam Ethiopia aims to build.

The planned Grand Renaissance Dam is a \$4.2 billion hydro-electric dam on the Blue Nile, one of the main tributaries of the Nile.

The project has been a source of concern for the Egyptian government since May last year, when images of the dam’s construction stirred public anxiety about possible effects on Egypt’s share of Nile waters, the country’s main source of potable water.

Fahmy carried a message from Interim President of Egypt, Mansour requesting the government of Tanzania to assist in asking the African Union (AU) to re-admit his country’s membership.

Upon his arrival in Dar es Salaam, the Egyptian minister had audience with the Minister for Foreign Affairs and International Co-operation, Mr Bernard Membe and informed him about the quest for Egypt to regain her AU membership.

He said factors that led to suspension of the membership, (military coup) were no longer valid. “It was people’s decision to defend their country from extremists,” he said, adding that the country was presently geared towards preparation for national referendum before elections next year.

The Nile river is subject to political interactions. It is the world’s longest river flowing 6,700 kilometers through ten countries in northeastern Africa — Rwanda, Burundi, Democratic Republic of

the Congo (DRC), Tanzania, Kenya, Uganda, Ethiopia, Eritrea, South Sudan, Sudan and Egypt with varying climates.

The meeting also discussed various issues related to bilateral agreements between the two governments whereby; four businessmen from Egypt were also connected by the Ministry of Foreign Affairs to the Tanzania Investment Centre (TIC), to explore investment opportunities in the country.

In 2010, Ethiopia, along with five other countries based along the river Nile (Kenya, Uganda, Rwanda, Tanzania, and Burundi in 2011) signed a Cooperative Framework Agreement that addressed issues of using the water in ways that do not cause significant harm to other countries reliant on the water. Basically these countries were fed up with always having to ask permission from Egypt before they could attempt to use the river in any development project. The agreement lays the foundations for creating a Nile River Basin Commission that would manage all water rights and development projects along the river.

Ethiopia claims that the \$4.2 billion hydroelectric dam would benefit agriculture and any energy consumers in East Africa, whilst at the same time not affecting the flow of water downstream; even Sudan has shown its support for the project.

Egypt claims that it signed a 1959 agreement with Sudan that granted them the rights to 55.5 billion cubic metres of water from the total 84 billion cubic metres flowing through the river. However, Ethiopia and other upriver countries have rejected the agreement.

“Tanzania makes its stand clear on Nile”, 03/03/2014, online at:

<http://www.busiweek.com/index1.php?Ctp=2&pI=709&pLv=3&srI=49&spI=27&cl=10>

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### ❖ **Ex-irrigation minister says Egypt not proactive enough on Ethiopian dam**

Former Minister of Irrigation Mohamed Nasr El-Deen said in a press conference that Egypt is not being proactive enough about the risks of the Ethiopian Grand Renaissance Dam.

The conference took place Wednesday in Cairo, organised by the liberal Free Egyptians Party and Al-Ahram Centre for Political and Strategic Studies.

Nasr El-Deen believes that one of the main problems in Egypt's response to the Renaissance Dam is that the steps taken to resolve the issue are reactive. He added that Egypt's reactions are always either late or indecisive.

Nasr El-Deen said that the information Egypt has about Nile Basin countries is neither enough nor up to standard.

"Egypt is experiencing an acute shortage of qualified technical manpower, as a consequence of limited training programmes, weak financial incentives and a lack of education in universities and research centres," he stated.

Nasr El-Deen also said that the Free Egyptians Party, along with some university professors, are about to found a non-governmental organisation, which will be known as the Egyptian Council for Water.

The NGO is supposed to conduct studies and analyse technical, economic, legal, political and funding issues required to maintain the interests of Egypt in the Nile River.

The NGO will also work to support strategic relations with Sudan.

Nasr El-Deen pointed out that Ethiopia has succeeded in imposing its own agenda on negotiations that have been taking place on the Renaissance Dam.

Amr Moussa, head of the outgoing 50-Member Committee tasked with amending Egypt's 2012 Constitution, was among attendees of the press conference.

Moussa believes that Egypt has been taking all diplomatic procedures to halt the construction of the Ethiopian dam.

Ethiopia's Renaissance Dam project is a \$4.2 billion hydroelectric dam on the Blue Nile, one of the main tributaries of the Nile.

The project has been a source of concern for the Egyptian government since May last year, when images of the dam's construction stirred public anxiety about its possible effects on Egypt's share of Nile water.

Egypt, Ethiopia and Sudan formed a tripartite technical committee to study the possible effects of the dam and try to generate consensus on the project. Ethiopia maintains that Egypt's water share will not be negatively affected by the successful completion of the dam.

On Monday, present Irrigation Minister Mahmoud Abdel-Muttalib denounced on what he described as Ethiopia's obstinacy towards building the Renaissance Dam.

He also said that Egypt may send an official statement demanding that construction of the Ethiopian dam be halted until a mutually agreeable solution is found.

Egypt has repeatedly demanded that Ethiopia submit construction plans for the dam for assessment by international experts.

However, Ethiopian Irrigation Minister Alamayo Tegno said his country is committed to the recommendations of an international committee of experts.

“Ex-irrigation minister says Egypt not proactive enough on Ethiopian dam”, 05/03/2014, online at:  
<http://english.ahram.org.eg/NewsContent/1/64/95978/Egypt/Politics-/Exirrigation-minister-believes-Egypt-not-proactive.aspx>

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### ❖ In Laos, poorly designed Don Sahong dam threatens Mekong

*Environmentalists slam Environmental Impact Assessment (EIA) based on "incomplete" research. The project endangers fish and more than 60 million people living in the lower basin of the river. Some of the endangered species are "unique". Damage is estimated at between US\$ 1.4 and 3.9 billion a year.*

Vientiane (AsiaNews) - The developer of the proposed Don Sahong Dam on the Mekong River in Laos has based the project's Environment Impact Assessment (EIA) on "flawed and incomplete research". It has also failed to consult communities that would be affected by it, the World Wide Fund for Nature (WWF) said Tuesday.

For the conservation group, the lives of least 60 million people living along the lower basin of the river are at risk, not to mention the river's fish population.

Because the EIA made by Malaysia's Mega First Berhad, the company selected to build the dam, is so flawed, the environmental group wants the 260-megawatt project to be suspended. Construction was slated to start by the end of September.

In Thailand, Cambodia and Vietnam, the dam has already set off numerous protests. For critics, the dam project has failed to vet its impact downstream.

The "WWF's review, conducted by international fish passage experts, finds the EIA riddled with problems such as inappropriate research methods, contradictory or lack of evidence and making recommendations on mitigation that have not been proven to work," the conservation group said.

For the WWF, the dam's site is wrong, chosen without proper knowledge relating to the natural environment and the people living in the area.

Speaking to *Radio Free Asia (RFA)*, Chhith Sam Ath, country director for the WWF in Cambodia, said that the EIA needs to be carried out "objectively and scientifically" in order to fully understand the risks to people, natural resources and wildlife in the Lower Mekong.

In its current form, the EIA does not address trans-boundary concerns, and lacks critical knowledge and data regarding the impact of the dam. It therefore "cannot be considered acceptable as a scientific study". Instead, the dam can be expected to "hasten the extinction of the river's unique wildlife."

If built, the Don Sahong, which is to be located slightly more than a kilometre from the Lao-Cambodia border, will block the Hou Sahong Channel - the only year-round channel for trans-boundary fish migration on the Mekong.

For the WWF, blocking the channel would cause "permanent damage" to the Mekong basin's fishery resources, which it valued at between U.S. \$1.4 billion and \$3.9 billion per year.

According to design guidance by the Mekong River Commission (MRC), an intergovernmental body that monitors development on the waterway, hydropower projects must ensure that 95 percent of target fish species can pass through the dam's fish passage, WWF said.

Chhith Sam Ath said that there was no scientific evidence in the Environmental Impact Assessment to support claims that the Don Sahong will not have a significant impact on fisheries.

For this reason, WWF experts want a joint Lao-Cambodian commission to study the issue, hoping that bilateral talks between Phnom Penh and Vientiane will include residents in the area affected by the project.

The Mekong River starts in the Tibetan plateau, flows through China's Yunnan province until it reaches Myanmar, Thailand, Laos, Cambodia and Vietnam.

About 65 million people live along the river, relying on fish farms and the natural fishery, which is worth an estimated US\$ 3 billion.

Considered the second most important river in the world in terms of biodiversity, the 4,880-km long Mekong is threatened by a number of projects involving dams and hydroelectric power plants.

Vietnam, Cambodia and the Mekong River Commission (MRC) have called for a ten-year moratorium but have not had any success. Meanwhile, there has been a 300,000 tonnes drop in fish catch.

“In Laos, poorly designed Don Sahong dam threatens Mekong”, 07/03/2014, online at: <http://www.asianews.it/news-en/In-Laos,-poorly-designed-Don-Sahong-dam-threatens-Mekong-30505.html>

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### ❖ Tibet quake risks rising as China keeps building dams

(TibetanReview.net, Mar03, 2014) – The Tibetan Plateau region has experienced rising seismic activity in recent years and part of the explanation for it may lie in China’s increased dam building activities there, according to *thethirdpole.net* Feb 28. Some scientists have blamed large dams for having triggered earthquakes, most notoriously, the Zipingpu dam for the catastrophic Wenchuan earthquake in 2008, the report added.

China’s current, 12th Five Year Plan targets 15 percent of its energy production coming from renewable sources, primarily hydropower. As a result, there has been a huge increase in dam building projects. Most of the dams have been or will be built in the Tibet Autonomous Region (TAR), Qinghai and the Tibetan areas of Sichuan and Yunnan provinces over the Yangtze, Mekong and Salween rivers.

The report said that some 60 dams will be built in the region – with 20 already built and 40 being in the planning stages.

China is building those dams as enormous risks, both to itself and the local Tibetan residents. The report said that consistent and severe seismic activity combined with the concentration of dam construction on the Tibetan plateau could have catastrophic effects if an earthquake causes a dam to fail, creating a “domino effect”, as a surge of water collapses cascades of dams further downstream. It cited a 2012 Probe International report as noting that “98.6 percent of all of these dams (in the Tibetan areas), and 99.7 percent of western China’s electricity generating capacity will be located in zones with a moderate to very high level of seismic hazard.”

In the Kham region of Tibet, where there had been only two major known earthquakes since 1480, several unexpected severe ones were recorded in Aug 2013, the report noted. Two of them, which measured 4.2 to 5.7 on the Richter scale, caused 87 casualties and damaged 45,000 houses, it added.

Four large hydropower dams planned for construction on the Lancang (Mekong) are located near those earthquakes. They include the Rumei (Tibetan: Rongmei) hydropower project, which, at 315 metres, will be the second highest in the world after its completion.

Dam plans in the region have been based on an assumption of low seismic hazard in the region. The Global Seismic Hazard Awareness Program has estimated only a 10 percent probability of moderate earthquakes in the area in 50 years. However, the unusual events in Aug 2013 signify that past evaluations may be a gross underestimation of future seismic risks, the report said.

Hence “just because nothing’s happened in the past doesn’t mean nothing will happen in the future,” Adrian Moon, a geologist who has been monitoring earthquake activity in the Kham region and Tibetan plateau since 2009, was quoted as saying. The report also said that although Chinese regulations stipulate that dams be designed to withstand seismic activity, the recent New Zealand and Japanese cases have demonstrated what happens when “an unexpected event overwhelms calculated risk factors”.

The report is, however, pessimistic about China heeding these warnings. It said the pressing need to secure China’s energy supplies means that long-term seismic risks are currently overlooked; that the country aims to double its power generating capacity by 2030, with 20 percent coming from renewable, including hydropower.

“Tibet quake risks rising as China keeps building dams”, 03/03/2014, online at:  
<http://www.tibetanreview.net/news.php?&id=13288>

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### ❖ Can Asia's Emerging Economies Protect Their Water Resources?

Asia's economic growth has been one of the success stories of the 21st century. But the economic rise of countries such as China, India, Vietnam and Indonesia has created serious pressure on their environmental resources, particularly their water supplies.

A recent study by the Bertelsmann Foundation suggests that countries tend to prioritise economic growth over environmental protection. It is only after countries reach high levels of economic development that they begin to invest time and money into safeguarding environmental resources. Upper-middle-income China and India, as well as lower-middle-income Vietnam and Indonesia, have all begun the task of creating policy regimes to secure the safety of their water resources.

But making policy and implementing it are two different things, and none of the countries have gone far enough to create a safe water regime that can meet the needs of their populations as well as their economies.

In China, pollution has rendered the water so unsafe that less than half of the water can be treated to the point where it would be safe to drink, and a quarter of surface waters are unusable even for industrial needs. In India, one in eight people do not have access to clean drinking water and three-quarters of all diseases are caused by contaminated water. Up to 80 per cent of diseases in Vietnam are attributable to the effects of water pollution. And in Indonesia, according to the World Bank, untreated sewage results in six million tonnes of human faeces being released into inland water bodies every year, contributing to the serious water pollution that means half the population has no access to clean water.

In each of these countries, the poor are more seriously affected than the wealthy, adding to the growth of inequality and forcing the weakest members of society to bear the cost of economic development.

All four countries have taken steps to introduce a regulatory and policy regime to address the problem. But none of them has succeeded in building a policy regime that effectively protects environmental and water resources.

China

China receives a score of 2 out of a possible 10 on environmental policy in the Bertelsmann Foundation's study. This low score comes in spite of the fact that China has created a raft of policies and initiatives aimed at ameliorating its environmental woes. Its water pollution law in 2008 introduced greater penalties for water polluters, while new regulations mandate that 95 per cent of water tested should meet national guidelines for water quality.

But China's water policy faces the same challenges in implementation as the rest of its environmental regulations. Monitoring, implementation and enforcement is often delegated to local authorities, which often prioritise the industrial interests who provide employment and economic development. Rapid industrial development and increased use of water-intensive crops such as wheat make the situation even graver. Without improvements in the regulatory environment, China's water shortage problems will not improve.

#### India

India scores 5 out of 10 on environmental policy in the study. The country's inability to safeguard its resources shows that policy failure is not confined to authoritarian governments: despite the interest of the electorate in accessing clean water, democratic processes alone cannot ensure policy is effectively implemented.

In India, environmental protection is enshrined in the constitution. India introduced the National Water Policy in 2012, which among other measures envisaged the establishment of a national water regulatory body. A draft National Water Framework Law was circulated in 2013, although critics charge that it does not go far enough in uprooting the status quo. But in spite of all these policy initiatives, the country does not have the institutional capacity to enforce its environmental regulations.

The Bertelsmann study shows that environmental programs are underfunded and inspection and monitoring programs are inadequate. As a result, the country stands to lose out in human and economic terms. The World Bank estimates that the cost to India of water and air pollution as well as soil degradation comes to 5.7 per cent of the country's GDP.

#### Indonesia

Like China, Indonesia scores 2 out of 10 on environmental policy. The country has signed up to the Millennium Development Goal of halving the number of people without access to clean water by 2015. Beginning in the 1990s, water companies were privatised to try and improve investment in water supply in the country.

But Indonesia's water companies provided clean water to only 42 per cent of urban residents and 14 per cent of rural residents in 2012, in part because many of these private-sector companies are facing financial difficulties. Indonesia introduced a new water resources law in 2004, but corruption, institutional incapacity and weak governance make the new law difficult to effectively implement.

#### Vietnam

Vietnam scores 5 out of 10 on environmental policy. The Bertelsmann study suggests that Vietnam is working hard to strengthen the policy framework for environmental management, introducing high-level policy documents such as the National Strategy for Environmental Protection in 2010. But overuse of waterways for irrigation, industry and hydropower creates pollution and causes health problems for users of contaminated water — diarrhoea is one of the major causes of disease and illness in the country.

Environmental impact assessments are conducted before projects are implemented, but their recommendations are regularly ignored. Overseas companies, especially from Taiwan and South Korea, contribute to Vietnam's industrial pollution, but local authorities are reluctant to enforce strictures against them. The government needs to create policy to limit the exploitation of waterways and to increase enforcement of existing legislation.

China, India, Indonesia and Vietnam have all created policy regimes to secure the safety of their water resources in recent years. But it's not enough to simply introduce water management policies — it's time to work towards effectively implementing them.

"Can Asia's Emerging Economies Protect Their Water Resources?", 05/03/2014, online at:  
<http://www.economywatch.com/features/asia-emerging-economies-protect-water-resources.05-03.htm>

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### ❖ Indian cities face 'huge' risks without climate planning

LONDON (Thomson Reuters Foundation) – Continuing failure to plan ahead for more extreme weather in India’s cities could lead to huge economic and health costs, and hit India’s most vulnerable particularly hard, experts say.

What is needed is a comprehensive strategy to develop resilience in cities, including a “paradigm shift” in how modern cities are planned and managed, argue the authors of a [policy brief](#) by The Energy and Resources Institute, (TERI), a leading Indian research organisation and think tank.

According to the brief, climate resilience is a vital aspect of urban planning that has largely been ignored to date. The continued effects of inaction could be disastrous, and “could lead to huge economic losses (and) negative health impacts associated high social cost burdens, particularly among vulnerable groups such as the poor, disabled, elderly, and children,” it warns.

Divya Sharma, a researcher at TERI who worked on the brief, said that India must take on a proactive approach to climate change, rather than a reactive one.

“We cannot afford to rebuild the entire system that is being destroyed by these extreme (weather) events. We need to prepare and know what lies ahead in terms of climate. We need to understand and develop early warning systems, so that we can save some of the infrastructure. We need to adapt our infrastructure for these changes,” she said.

Two major cyclones and flooding last year in India are costing “billions” in recovery funds, spending that could have been greatly minimized with proactive, preparatory resilience measures, she said.

Some Indian cities have shown the capacity to be proactive on climate issues. Last year the city of Ahmedabad [announced a “pioneering” plan](#) to prepare its residents for severe heat, using an early warning system and special water management plan.

On India’s east coast, similarly, deaths from powerful Cyclone Phailin last year were limited to a handful thanks to [planning measures](#) such as pre-positioning of emergency food, drinking water,

boats and helicopters, cancellation of holidays for civil servants and orderly – and enforced – evacuation.

## BUREAUCRATIC BARRIERS

But in other places, bureaucracy and the nature of the Indian political system remains a big obstacle in the path of establishing effective climate resilience policies, said Sharma of TERI, which is run by Rajendra Pachauri, chairman of the Intergovernmental Panel on Climate Change (IPCC).

“Building development is a state subject, which means that without the mandate of the state government, the city cannot take up any kind of development,” she said.

The report calls on state governments to engage more effectively on the issue and stump up adequate money to deal with the threats.

Still, all of India’s states are at least now working on mandated climate action plans, Sharma said.

“We are at that transition phase where the state climate change plans have been prepared and the state government is looking at funding, budgetary allocation, the institutional framework, and overall roadmap as to how the state action plan on climate change should be implemented,” she said.

TERI’s brief has a range of suggestions for cities hoping to improve their climate resilience, including making a case for investing in climate action, spreading knowledge about climate resilience among many organisations, integrating resilience policy into laws and regulations related to urban development, and, crucially, finding the needed money.

“Integration of a climate resilience agenda has the potential to systematically build resilience of cities and its systems, reduce vulnerability and achieve the desired development goal,” the report concludes.

“Indian cities face 'huge' risks without climate planning”, 05/03/2014, online at:

[http://www.trust.org/item/20140305152832-lvni2/?source=hptop&utm\\_source=Circle-of+Blue+WaterNews+%26+Alerts&utm\\_campaign=79d4b80410-RSS\\_EMAIL\\_CAMPAIGN&utm\\_medium=email&utm\\_term=0\\_c1265b6ed7-79d4b80410-250657169](http://www.trust.org/item/20140305152832-lvni2/?source=hptop&utm_source=Circle-of+Blue+WaterNews+%26+Alerts&utm_campaign=79d4b80410-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-79d4b80410-250657169)

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❖ **Kerala Throttling its Golden Goose**

**ALAPPUZHA, (India), Mar 6 2014 (IPS)** - Farming, tourism, poor fishing practices along with misdirected policies are muddying the famous backwaters of Kerala, one of India's best known holiday destinations. Nowhere is this misuse more visible than in and around the 95-km-long Vembanad Lake.

Bearing the brunt are small fishing communities which are caught between dwindling fish catch, worsening water quality and the usurpation of banks – traditionally used as fish-landing points – by tourism operators.

“Until about eight to 10 years ago, I would collect this amount in just two-three hours,” says fisherman Ashokan, pointing to a mound of black clams in his canoe-like boat. “Now I work the whole day to procure it,” he tells IPS.

Kerala's backwaters, a tourist hotspot, are made up of a 1,500-km waterway network of canals, lagoons, lakes and rivers that run parallel to the Arabian Sea and are fed by both saline and fresh water, contributing to a unique ecosystem. Many areas in these wetlands are below sea level, allowing sea water to flow inwards.

Major towns and cities dot the backwaters, such as the historic port city of Alleppey, now called Alappuzha, where the Maharaja of Travancore oversaw the building of canal waterways in the 18th century.

At the heart of this entire ecosystem is the Vembanad wetland area, spread over 36,500 hectares and fed by six large rivers and seawater. It is a lifeline for over 1.6 million people living on the lake's banks.

More than 150 species of fish are found in Vembanad Lake. The Horadandia atukorali fish is found only around Pathrimanal island in the lake. The ecological significance of Vembanad's rich biodiversity has made it the country's largest Ramsar site, meant to accord protection for conservation.

But being a Ramsar site has not brought any protection for Vembanad Lake so far.



The waters of the lake are now divided by the Thanneermukkom barrage, built in 1975 to shut out saltwater ingress into fields in a bid to promote double cropping of paddy in areas surrounding the lake.

The lake's sea water ingress traditionally helped flush out waste while containing flood waters. The lack of a mix of saline and freshwater, vital to fish breeding, has affected fish species.

“Prawns spawn at the mouth of the estuary and baby shrimps are carried inwards into the lake with tidal sea waters, but they are now trapped, unable to flow inwards because of the barrage,” T.D. Jojo from the Ashoka Trust for Ecology and Environment (ATREE) tells IPS.

Chemicals from reclaimed farmlands, illegally discharged effluents from tourism houseboats and lakeside industries such as coconut husk retting have contributed to significant pollution in the lake.

The Thanneermukkom barrage, built on the narrowest part of the lake's width, closes its gates each year from Dec. 15 to Mar. 31, and this has proved to be long enough to hamper fish breeding and also cause decomposition of nutrients in the lake.

As fishing stocks have decreased, fishermen have begun using methods that harm fishlings. Over-fishing is now a problem in Vembanad.

ATREE scientists have been working the last six years to conserve the ecology of the lake. “We now have 13 lake protection groups, trained to check water quality in the lake,” says Dr. Priyadarsanan Dharmarajan, team leader of the ATREE Vembanad conservation project.

Fishers, whose complaints on the lake's deteriorating health were not taken seriously for years, now feel vindicated by data that shows low salinity and high acidity corresponding exactly to the shutting of the barrage gates.

“We want both saline and freshwater for farming and fishing, so we have asked for the barrage to be opened a little earlier,” says Murlidharan, member of a joint farmer-fishing forum and a fisherman for 30 years.

But the forum has small farmers whose voices are not heard by rich farming interests.

“Our primary concern is paddy. It is not possible to open the Thanneermukkom barrage a little earlier,” district collector N. Padmakumar, Alappuzha’s top administrative official, tells IPS. “The ratio of farmers to fishermen is 10 to one. Whose interest should I protect?”

He is also short of answers on the ecological degradation of Vembanad. “It (degradation) has happened historically. I don’t have a magic wand to make things right. There should be political will on the part of the government to do something.”

The resorts on the lake’s banks blame the houseboats for the pollution, but the houseboat owners deny this. “Houseboats don’t pose a problem for the lake,” says operator Dilip Kumar.

He also tries to sweep aside allegations of declining fish catch. “You can get prawns as big as this (pointing from his fingers down to his elbow) for 80 rupees (1.15 dollars) a kilogram,” he says.

“Kerala Throttling its Golden Goose”, 06/03/2014, online at: [http://www.ipsnews.net/2014/03/kerala-throttling-golden-goose/?utm\\_source=Circle+of+Blue+WaterNews+%26+Alerts&utm\\_campaign=b3b93ef4d2-RSS\\_EMAIL\\_CAMPAIGN&utm\\_medium=email&utm\\_term=0\\_c1265b6ed7-b3b93ef4d2-250657169](http://www.ipsnews.net/2014/03/kerala-throttling-golden-goose/?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=b3b93ef4d2-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-b3b93ef4d2-250657169)

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### ❖ India Approves 3 Billion Rupees in Solar Pump Subsidies

**India** approved 3 billion rupees (\$49 million) in subsidies to help farmers install solar-powered water pumps to boost agricultural yields and reduce expensive diesel fuel use.

The Ministry of New and Renewable Energy will provide grants to install 17,500 irrigation pumping systems to 2016 funded by a carbon tax on coal, according to a **notice** posted today on its website.

“Solar photovoltaic pumping systems can easily meet the irrigation requirements for small and marginal farmers,” the notice said. “It will increase the cropping intensity.”

India has 26 million groundwater pumps on farms that suffer from blackouts and volatile fuel costs. Switching those to run on solar would save about \$6 billion a year in power and diesel subsidies and has drawn companies including BlackRock Inc.- backed **SunEdison Inc. (SUNE)** and **Jain Irrigation Systems Ltd. (JI)**, Asia’s top irrigation-equipment maker.

Farmers travel long distances to procure diesel for their pumps, the notice said. The project will allow them to boost output and reduce diesel consumption, it said.

The grants will cover as much as 30 percent of project costs. State governments including Rajasthan, **Tamil Nadu**, and Maharashtra that participate in the program will be required to match with a subsidy covering at least 15 percent of the cost. Farmers will cover the remainder. The program’s total cost is estimated at about 10 billion rupees. India began taxing coal producers and importers 50 rupees a metric ton in 2010, raising 25 billion rupees in its first year.

“India Approves 3 Billion Rupees in Solar Pump Subsidies”, 06/03/2014, online at:

[http://www.bloomberg.com/news/2014-03-06/india-approves-3-billion-rupees-in-solar-pump-subsidies.html?utm\\_source=Circle+of+Blue+WaterNews+%26+Alerts&utm\\_campaign=b3b93ef4d2-RSS\\_EMAIL\\_CAMPAIGN&utm\\_medium=email&utm\\_term=0\\_c1265b6ed7-b3b93ef4d2-250657169](http://www.bloomberg.com/news/2014-03-06/india-approves-3-billion-rupees-in-solar-pump-subsidies.html?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=b3b93ef4d2-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-b3b93ef4d2-250657169)

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## ❖ Ivory Coast became the 34th country ratifying the United Nations Watercourses Convention

*The number of the countries who ratify 1997 UN Convention on the Non-navigational Uses of International Watercourses has reached 34.*

Throughout the 20th century, while the International Water Law focused on the non- navigational uses of international watercourses, both bilateral and multilateral agreements were signed and ratified in Europe, the North America and other parts of the world, as well. However, there was no general rule or agreement on which it was reached a consensus. During 1950s and 60s, in some particular areas of the world, water shortage was observed. The lack of general rules of law about the use of water sources led to conflicts on this issue. Even though there was no problem about water shortage globally; in regional sense, the agreements by two or more sides appeased the problem of water shortage. Within this period, there were some attempts in the field of international law to build principles about the allocation of international watercourses. The necessity of the rules of law for regulating the non-navigational uses of the international watercourses made the international non-governmental organizations work on this subject.

On December 08, 1970, the UN General Assembly assigned the International Law Commission (ILC) to examine “the Non-navigational Uses of the International Watercourses.”

“UN Convention on the Non-navigational Uses of International Watercourses”, on which the ILC has worked since 1970, was adopted by the General Assembly on May 21, 1997 with only three dissenting in a vote of 106. As the document requires ratification by 35 countries, it has not entered into force yet. The preparation of the document took 27 years. Within the framework of this document; hydrological contradictions and the difficulty in combining the laws are referred, necessary principles for cooperation and common management responsibilities are stated, as well.

ILA, Water Resources Committee, having stated in the meetings at Rome in 1997 that many controversies on transboundary waters had not dissolved even with the agreements; decided that the ratification of the law by the 1997 UN Conventions needed to be decelerated and Helsinki Rules needed to be renewed to overcome the problems created by the international or global water management of 21th century. The Committee, who organized nearly 10 meetings between the years

1997-2004; combined the original document of the 1966 Helsinki Rules and dual documents including the rules accepted within 30 years in 1999.

In Millennium Conference in 2000, ILA assigned the committee to regulate and present this dual document in Berlin in 2004. The document presented in Berlin was generated with 40 years of experience, the development of the international environmental law in time and in regard to the state of UN Convention.

As it is mentioned above there is no global agreement on increasing water shortage problem and water resources, which highly affect both the lives of creatures and the relations between the countries. The 1997 UN Convention on the Non-navigational Uses of International Watercourses was actually designed to contribute to global water law. To put the law into force, ratification by 35 countries is required. It is observed that there is a rapid increase in the numbers of ratifying countries, lately. After Niger who ratified the document in 2013, Montenegro also ratified it on 24 September 2013. Last week, Ivory Coast joined the ratifying countries on 25 February 2014, which raised the number to 34. With the ratification of Gambia, Senegal, Ireland and Britain, the enforcement of the law is expected in the upcoming days.

#### The Structure of 1997 UN Convention

Part I. Introduction (Article 1-4)

Part II. General principles (Article 5-10)

Part III. Planned measures (Article 11-19)

Part IV. Protection, preservation and management (Article 20-26)

Part V. Harmful conditions and emergency situations (Article 27-28)

Part VI. Miscellaneous provisions (Article 29-33)

Part VII. Final clauses (Article 34-37)

Equitable and reasonable utilization (5th article) and the obligation not to cause significant harm (7th article) were two most significant defining points which had decelerated the process of the convention. Many countries are concerned about the convention because of the ambiguous language used in these points. In addition to 16th and 23rd articles (Reply to Notification) and 33rd article

(Settlement of Disputes), these two points have played an important role on making Turkey give dissenting vote. Besides, the term "International Watercourses", which also take place in the name of the convention, has been replaced by a more accurate term "Transboundary waters". The use of "Transboundary Waters" term at the name of UNECE Conventions adopted in 1992 set an example. In the 6th Article of the Convention there are 7 factors in the issue of equitable and reasonable utilization, which was also stated in Helsinki Rules previously. The relevant factors are held in a more complex way in the convention. For instance, as it is mentioned by many writers, while the contribution of riparian countries to water was expressed clearly in Helsinki Rules; in the 6.1 a article the word hydrology, whose meaning was extended and the words ecology and other factors were added. Moreover, there are some lacks in the convention about the transboundary underground waters, which have gained a great significance recently. Although the subject is held with an approach taking the relation between surface and underground water into consideration, there is no comment on the fossil aquifers which have no relation to surface water. Even though the convention is adopted, it is inadequate for the developments about water. The convention is required to be supported with supplementary protocols which include the new tendencies about water management, the climate change and the study on the underground waters.

The adoption of the convention legally binds only the ratifying countries. Turkey, who is not a side of the convention, is exempted of the obligations set. Alongside Syria who gave a reserved assenting vote, Iraq is a side of this convention.

"Ivory Coast became the 34th country ratifying the United Nations Watercourses Convention", ORSAM, Tuğba Evrim Maden, 04/03/2014, online at: <http://www.orsam.org.tr/en/WaterResources/showAnalysisAgenda.aspx?ID=2604>

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