



# 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

23 December 2013 – 29 December 2013

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## ❖ World's Longest Undersea Water Pipeline Uniting Turkey to Cyprus

Work has begun on the most complex phase of the world's longest undersea water pipeline, a project to bring freshwater from Turkey beneath the Mediterranean to the occupied part of Cyprus that proponents say may help reunite the island.

The first kilometer of pipeline was laid this month on the \$484 million project backed by Turkey Prime Minister Recep Tayyip Erdogan to quench thirsts in the breakaway state. The centerpiece is an 80-kilometer (50-mile) pipeline to be suspended as much as 280 meters (919 feet) under water.

The project, its finish date already pushed back three months to June by technical challenges, is proceeding as reunification talks remain stalled on a divided island the World Resources Institute ranks as one of the 17 most water-stressed places on Earth while Turkey and Turkish Cypriots have bickered with Cyprus over offshore natural gas discoveries.

Water from Turkey's pipeline to the mythological island birthplace of the goddess of love Aphrodite should be seen as "an opportunity for peace" in Cyprus, Forestry and Water Works Minister Veysel Eroglu said.

The pipeline, though, is "not the best solution both in economic — too expensive — and environmental terms," said Cypriot government environment commissioner Ioanna Panayiotou. "Water is sensitive and might get polluted during the transfer."

"World's Longest Undersea Water Pipeline Uniting Turkey to Cyprus", 22/12/2013, online at: <http://eu.greekreporter.com/2013/12/22/worlds-longest-undersea-water-pipeline-uniting-turkey-to-cyprus/>

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❖ **Armenia's premier instructs to look into water reservoir construction by Turkey**

YEREVAN, December 23. /ARKA/. Armenia's premier Tigran Sargsyan instructed the respective agencies to look into legal aspects of Turkey's decision to build water reservoirs on rivers, the press office of Armenia's government reported.

Efficient use of water resources is very important today bearing in mind most of these resources are formed in the territory of modern Turkey, the premier said at an annual scientific conference on legal aspects of Armenia's foreign policy Saturday.

Sargsyan said Turkey's government made a decision to build reservoir storages on rivers that have impact on water resources in Ararat Valley and allocated some 20 billion dollars for this. According to experts, Armenia may face serious problems with irrigation systems in Ararat Valley after some years, the premier said.

There are currently no diplomatic relations established between Turkey and Armenia: official Ankara closed the border in 1993. The uneasy relationship between the countries is caused particularly by Ankara's support to Azerbaijan on Karabakh problem and Turkey's overreaction to international recognition of the 1915 Armenian genocide in Ottoman Empire. --0--

"Armenia's premier instructs to look into water reservoir construction by Turkey ", 23/12/2013, online at:  
[http://arka.am/en/news/politics/armenia\\_s\\_premier\\_instructs\\_to\\_look\\_into\\_water\\_reservoir\\_construction\\_by\\_turkey/](http://arka.am/en/news/politics/armenia_s_premier_instructs_to_look_into_water_reservoir_construction_by_turkey/)

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### ❖ Iran to sell Persian Gulf desalinated water

Iran will launch a water desalination plant on Qeshm Island, located in the Persian Gulf, the Mehr News Agency quoted Abbas Aliabadi, the managing director of Iran Power Plant Projects Management Company (MAPNA) as saying on Dec. 23.

The plant, which is projected to be inaugurated in February, can supply sailing ships in the region with potable water, he added.

The Qeshm facility will have the capacity to desalinate 18,000 cubic meters of water, he noted.

A power plant is also planned to be built on Qeshm Island, he said, adding that €70 million has been invested so far in the water desalination and the power plant projects.

“Iran to sell Persian Gulf desalinated water”, 24/12/2013, online at. <http://en.trend.az/regions/iran/2224920.html>

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## ❖ Israel's Water Challenge

Israel's successful efforts to increase water security will lessen one of the country's geographical constraints. But new sources of water are more energy intensive, and this could increase Israel's short-term dependence on energy imports unless domestic energy sources are successfully developed.

### Analysis

While Israel enjoys relative national security compared to its neighbors, which are struggling with internal fragmentation, this will probably change eventually. Because concerted military efforts have been required in the past to secure water resources, Israel has had a strong incentive to develop technological solutions to improve water security. Additional domestic water resources — including increasing desalination capacity and continued efforts to recycle water — allow Israel to mitigate one of its inherent geographic constraints.

Israel has substantially increased its capacity to desalinize water over the last decade. The arid country of roughly 8 million already has a number of desalination plants — including the Sorek plant, the world's largest desalination plant of its kind, which became fully operational in October. Israel has plans to increase total desalination capacity through 2020 such that it approaches the estimated annual amount of internally generated natural water resources.

### Naturally Occurring Water

Israel's total annual internal renewable natural sources of fresh water stand at 0.75 billion cubic meters. It has roughly 265 cubic meters per year of water per person available. This is well below the U.N. definition of water poverty, which is anything below 1,000 cubic meters per person per year.

For groundwater, Israel relies on two main aquifers: the Coastal Aquifer and the Mountain Aquifer (which is further divided into subaquifers). Both also lie under the Palestinian territory — in Gaza and the West Bank, respectively.

Israel's surface water is concentrated mainly in the north and east of the country. Israel is part of the Jordan River system, which also includes Syria, Lebanon, Jordan and the West Bank. The major rivers in the upper part of the basin include the Hasbani, Banias and the Dan rivers. These rivers

converge to form the Jordan River near the border of Israel, Lebanon and Syria before flowing into the Sea of Galilee. Downstream, the Jordan River is further fed by the major tributaries of the Yarmouk and Zarqa rivers.

2\_Israel\_920 (1) (1)Crucially, more than half of Israel's total natural water originates outside its borders: 310 million cubic meters come from Lebanon, 375 million cubic meters come from Syria and 345 million cubic meters originate in the West Bank. All the countries in this arid region compete for the limited resources of the basin. The Palestinian Authority has between 51 cubic meters per person and 333 cubic meters per person per year depending on location, while Syria and Lebanon receive water from additional river systems and operate at 882 cubic meters per year per person and 1,259 cubic meters per year per person, respectively. Jordan has 161 cubic meters per year per person.

Allocations of water from transboundary river systems are often disputed. The last basin-wide allocation scheme for the Jordan River system came in 1955 with the Jordan Valley Unified Water Plan (also known as the Johnston Plan, named after the American ambassador involved in negotiations). By allocating water based primarily on agricultural demand, the plan offered a compromise between participating nations. However, because many of the Arab states did not want to recognize Israel, the plan was never ratified. Attitudes toward cooperative distribution strategies continued to sour during the construction of Israel's National Water Carrier, which diverted water from the Sea of Galilee to other points in Israel. However, Jordan and Israel have used the Unified Plan as the basis for subsequent negotiations.

As one of the downstream riparian nations in the basin, protecting Israel's northern borders is essential to maintaining control of surface water resources. Maintaining control of the Golan Heights not only gives Israel a military advantage in dealing with adversaries to the north, it also helps to guarantee access to the Sea of Galilee.

Israel historically has demonstrated a willingness to use military force to guarantee access to water resources. In 1964, Syria, with the support of the Arab League, began devising plans to divert the Banias River, threatening roughly 10 percent of Israel's water supply at the time. From 1965-1967,

Israel launched attacks to destroy the diversion projects under construction in an effort to maintain access to the water source.

Water rights and distribution parameters were included in the 1994 peace treaty between Israel and Jordan. The Oslo II agreement in 1995 between Israel and the Palestinian National Authority also outlined parameters for water cooperation in the West Bank, but in practice, joint management has often failed and the Palestinian population remains heavily dependent on Israel for access to water.

These treaties also did not remove Israel's imperative to ensure continued access to water resources, nor its willingness to threaten military action to ensure it. In 2002, villages in southern Lebanon installed small pumping stations and irrigation pipelines on the Hasbani River. Ariel Sharon, Israeli prime minister at the time, claimed these actions constituted a "case for war" and threatened military action. While no action was taken, the posturing illustrates Israel's wariness of upstream water management schemes.

#### Expanding Sources of Water: Conservation and Desalination

The foundations of Israel's current water infrastructure system were laid in the 1950s and 1960s, when Israel faced a more volatile security situation. Subsequent decades saw further development of the efficient use of water and the development of alternative sources. As a result, Israel has expanded internal water resources without expanding its physical borders, helping mitigate the risk of international confrontations over water.

#### Preserving the Dead Sea

To the same end, Israel has also developed a highly organized water management system, effectively integrating the whole country. An early project known as the National Water Carrier, which comprises a series of canals, pipelines and pumping stations, moves water from the Sea of Galilee in the comparatively water-rich north to areas of higher demand and greater need in the central and southern zones.

Israel is also a pioneer and global leader in water-efficient irrigation technology. Because agriculture remains the largest water consumer in the country, efficient use in this sector is necessary for

continued sustainable water management. In addition to the irrigation technology, by effectively treating roughly 400 million cubic meters of wastewater, using it mostly to irrigate crops, Israel further reduces pressure on water resources.

Although Israel has used desalination technology on a smaller scale since the 1960s, the push for a substantial increase in desalination capacity began only after a major drought in 1998-1999. Several droughts over the course of the last 15 years drove home the vulnerability of Israel's water supply. Meanwhile, the overuse of groundwater resources, especially of the Coastal Aquifer, is degrading the quality of the water.

Israel currently consumes just under 2 billion cubic meters of water per year, and while water management has the ability to improve the efficiency of water usage, increasing populations in the region will continue to pressure these limited resources. These factors combined have pushed Israel toward desalination.

"Israel's Water Challenge", 26/12/2013, online at: <http://www.forbes.com/sites/stratfor/2013/12/26/israels-water-challenge/>

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### ❖ **China-Israel innovation industrial park to be built in Nanxun, China**

*The park will be a home to research and development in energy conservation and environmental protection, among other industries.*

Aiming to integrate the Israeli innovative spirit with Chinese market capacity, private investors and government officials from China's Zhejiang province have come together to build a future China-Israel Nanxun Innovation Industrial Park.

"Israel is the country of innovation," said Ricky Zhang, managing director and president of China-IL Business Association Holding Co., Ltd. "It has many innovative setups and many innovative technologies. But it may encounter some problems with abilities to promote this technology into the market. "When Prime Minister [Binyamin] Netanyahu visited China in May, he said that if we offer a marriage between Israeli technology and Chinese market, it will be a win-win situation."

China-IL Business Association Holding has already invested approximately \$170 million in the future 7.2-square-kilometer park, which will be located in the Nanxun district of the city Huzhou, about 125 kilometers southwest of Shanghai.

Representatives from both the investment firm and the local government are in Israel this week, meeting with Israeli companies potentially interested in setting up shop at the site. The park will be a home to research and development in six industries: energy conservation and environmental protection, medical instruments, electronic information, clean energy, new material and intelligent equipment manufacturing.

The investors are planning to divide the park into three zones: an industrial cluster for innovation enterprises, an incubation area for startup firms and a production area to bring technologies to markets, Zhang said. The park will feature Israeli-style architecture, exhibitions for Israeli products and facilities designed to cater to Jewish customs, such as some kosher-style restaurants, he said.

"We hope to establish a platform for the technology transference as soon as possible," Zhang said. "We have found that many Israeli technologies and also solutions are very advanced, and there will be very great demand in China."

In addition to the Israeli hi-tech firms operating at the park, many local enterprises will open their doors there to serve supporting roles to the Israeli firms, he added.

To Ye Li Zhong, the party secretary for the Nanxun District and an economic advisor to the Zhejiang province, locating the park in Nanxun is critical. Nanxun, according to Zhong, has “three distinctive aspects” – the first being its advantageous location in the Yangtze River Delta, close to Shanghai and accessible by many highways and airports.

“The second feature is that Nanxun has a very brilliant culture and ancient history,” he said. Silk originated in Nanxun, and the ancient town is on UNESCO’s World Heritage list.

The third distinctive feature is that Nanxun is a prominent player in several Chinese industries, including wood flooring, elevators, washing machines and other home appliances, Zhong said.

“Based on these factors, our Nanxun district, together with China-IL Business Association Holding, we promoted this project called the China-Israel Nanxun Innovation Industrial Park,” he said While the China-Israel Nanxun Innovation Industrial Park testifies to the growing relationship between Chinese and Israeli industries, it is not the first such concept to do so.

Chinese and Israeli business partners announced in November 2011 that they would be building a Sino-Israeli International Water Industrial Park in Dangguan, a city in the southern Guangdong province.

A cornerstone-laying ceremony for the park occurred in 2012, and the site should be able to accommodate companies by 2013, according to Dowell Technological & Environmental Engineering Co., the Chinese firm partnering with Israeli company Shirat Enterprises.

“The water project in Guangdong, I think it indicates the success of the initial stage of the cooperation between China and Israel,” said Wu Hong, chairman and CEO of China- IL Business Association Holding. The water sector represents “only one aspect in which Israeli [technologies] are cutting-edge,” he said.

While the Guangdong park will specialize in one industry, the Nanxun park will feature cutting-edge Israeli technologies in a variety of sectors, he said. In addition, the Nanxun park represents a cooperation between the Chinese public and private sectors and involves government participation, Zhang said.

Nanxun's location on the Yangtze River Delta is also particularly advantageous, Hong said, as it is the most developed region in China with the hugest domestic market outreach.

"There is going to be huge market room for Israeli companies to seek cooperation or to establish," he said.

"China-Israel innovation industrial park to be built in Nanxun, China", 24/12/2013, online at:

<http://www.jpost.com/Enviro-Tech/China-Israel-innovation-industrial-park-to-be-built-in-Nanxun-China-336033>

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❖ **‘36mcm of water entered dams over past two weeks’**

As the weather warms up, more snow is melting and raising storage levels at the Kingdom’s dams, according to the Water Ministry (JT photo)  
AMMAN — Eighty-four per cent of the rainwater that entered the country’s dams since the start of the wet season was collected during the past two weeks, a senior official said on Monday.

The 10 major dams, with a total capacity of 325 million cubic metres (mcm), received 43mcm since the onset of the rainy season on October 31, Water Minister Hazem Nasser said in a statement e-mailed to The Jordan Times.

“A total of 36mcm out of the 43mcm that were channeled into the dams since the start of the wet season, entered during the past 13 days,” he noted.

As the weather warms up, more snow is melting and raising storage levels at the dams, according to the minister, who noted that the dams now hold 127.52mcm, or 39.18 per cent of their total capacity.

“Hopefully, rising temperatures will melt more snow this week. Some 1.2mcm entered the dams during the past 24 hours,” Nasser said.

Following a three-day snowstorm earlier this month, two dams are currently at full capacity, while a third is over 71 per cent full. In addition, the desert dams, with a total storage capacity of 40-60mcm, are full, according to the ministry.

In December 2012, the dams held 51.6mcm, or 16 per cent, of their total capacity — less than half the amount they currently hold, according to official figures.

Moreover, rainfall between late October and late December last year supplied the dams with only 7.5mcm.

“‘36mcm of water entered dams over past two weeks’”, Jordan Times, 23/12/2013, online at:

<http://mideastenvironment.apps01.yorku.ca/2013/12/36mcm-of-water-entered-dams-over-past-two-weeks-jordan-times/>

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## ❖ **Let it flow: Water in Israeli nature reserves increased tenfold over past decade**

Re-diversion of water, law amendment and desalination operations are having major effect.

By Zafirir Rinat | Dec. 22, 2013

The water flowing through Israel's nature sites has increased tenfold over the past decade, and it's expected to continue increasing due to new arrangements for supplying water to agriculture and the growing use of desalinated water.

At a conference in Tel Aviv last week on river rehabilitation, sponsored by the Environmental Protection Ministry, Nissim Keshet of the Israel Nature and Parks Authority presented updated data on the water flow in nature sites, which showed the dramatic improvement.

The change is especially welcome after many years in which the water in streams and wellsprings was being diverted for human consumption, leaving little for nature sites. During the years of drought, the situation got even worse and some reserves were on the verge of drying up.

Following pressure from the INPA and other environmental organizations (including the Society for the Protection of Nature in Israel), 10 years ago an amendment was made to the Water Law, defining nature as a water “consumer” whose needs had to be met. This created a statutory basis for protecting natural water flow.

As a result, the “allotment” to nature was increased by the Water Authority from 10 million cubic meters per year to 50 million cubic meters annually.

Keshet noted, however, that part of the increase in water flow was the result of water being piped into the streams.

“We want special allotments through pipelines to be zero,” said Keshet. “Our approach is that we must allow all the water to be released into nature immediately. Only in areas where that isn't possible – such as the Ayun stream in the Galilee – should water be piped in from another site.”

Overall, the rate of water released into nature beyond the special allocations has reached more than 40 million cubic meters per year.

Over the next two years, it's expected to increase by another 50 million cubic meters by increasing the release of springwater into the Kishon River and water from Lake Kinneret into the southern Jordan River.

“The release of water into nature was made possible in part thanks to policies that enable the water to flow through the nature reserves, after which it is pumped from the slopes and used for irrigation,” explained Keshet. “This way we help nature but don't waste water that can be utilized.”

Another factor enabling increased flow from the springs is that groundwater is being replaced with desalinated water for many purposes.

“Let it flow: Water in Israeli nature reserves increased tenfold over past decade”, Haaretz, 24/12/2013, online at:  
<http://mideastenvironment.apps01.yorku.ca/2013/12/let-it-flow-water-in-israeli-nature-reserves-increased-tenfold-over-past-decade-haaretz/>

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❖ **Germany to finance climate protection project through 20m euros loan**

AMMAN — Jordan and the German Development Bank (KfW) on Monday signed a loan agreement for the project “Climate Protection in the Wastewater Sector”, according to a KfW statement.

On behalf of the German government, KfW “will make available 20 million euros of loan financing”.

The project includes investment measures for the construction, upgrading and/or extension of existing sewage sludge treatment facilities at wastewater treatment plants and the disposal of sewage sludge in Jordan.

A second agreement was also signed on Monday, under which KfW will make available a 15 million euro soft loan and a 1.5 million euro grant for accompanying measures of a project on “Energy Efficiency in Public Buildings”, the statement said.

“Germany to finance climate protection project through 20m euros loan”, Jordan Times, 23/12/2013, online at:  
<http://mideastenvironment.apps01.yorku.ca/2013/12/germany-to-finance-climate-protection-project-through-20m-euros-loan-jordan-times/>

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## ❖ Middle East: The politics of water

Who stands to gain from the historic deal signed to address a critical shortage of water in the region?  
Inside Story Last updated: 11 Dec 2013

An agreement between Israeli, Palestinian and Jordanian ministers to provide new sources of water for the three neighbours, has been sold as a rare example of regional cooperation. And it may save the Dead Sea along the way.

But it is a deal swirling with political, environmental and moral undercurrents.

The new project would see the construction of a desalination plant on the northern tip of the Red Sea in Aqaba, providing Jordan and Israel with a new source of drinking water.

Israel would in turn sell desalinated water for use in the occupied West Bank.

A later phase could see a 180km pipeline carry brine from the desalination plant on the Red Sea to the Dead Sea. The idea is to replenish the Dead Sea, as its water levels are declining nearly a metre a year.

Meanwhile, ministers signing the agreement at the World Bank in Washington were unanimous in their praise for the project.

Hazim el-Naser, Jordan's minister for water and agriculture, said: "We are joining hands with our regional partners to develop such an important project, which I think will be a model, not only for our region but to the whole world where we have conflict and hostilities."

The Palestinian Water Authority Minister Dr Shaddad Attili added: "We are living and we are sharing despite the problems we do have but also we are sharing the problem that comes from the scarcity of water. Today, we showed that we can work together in terms of making more water available."

"Let us hope that that agreement will be a glimmer of hope for let us say future agreements for comprehensive peace in the region," said Silvan Shalom, Israel's minister for infrastructures, energy and water.

But not everybody is in agreement. In October, more than 20 non-governmental organisations called on the Palestinian Authority (PA) to reject this deal.

They say the project undermines Palestinian water rights and legitimises Palestinian dispossession from the Jordan River.

Instead of being able to access the fresh river water, Palestinians will be sold desalinated water at a high cost.

The groups say the plan does not address damage to the West Bank Eastern Aquifer – currently the Palestinians’ only source of water.

Far from saving the Dead Sea, they say adding brine produced in the desalination plant will destroy its ecosystem.

The NGOs also believe the World Bank’s studies of the project lack credibility and transparency.

Reporting from the Dead Sea in Jordan, Al Jazeera’s Simon McGregor-Wood said: “The deal signed in Washington makes for some nice headlines, some good PR for sure, but it is about the politics of water, it is about human consumption, it is not about saving the Dead Sea.”

So, what is at stake, who stands to gain the most, and what is the real price of this deal?

Inside Story, with presenter Shiulie Ghosh, discusses with guests: Munqeth Mehyar, chairman of Friends of the Earth Middle East and director of its Amman Office; Sharon Udasin, journalist with Jerusalem Post, who specialises in environment, energy and water affairs; and Mark Zeitoun, reader at the School of International Development at the University of East Anglia, and director of the University’s Water Security Research Centre.

“Middle East: The politics of water” , Al Jazeera, 24/12/2013, online at:

<http://mideastenvironment.apps01.yorku.ca/2013/12/middle-east-the-politics-of-water-al-jazeera/>

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### ❖ Red Sea to the Dead sea holds a negative economical impact

AMMONNEWS - The Palestinian study of the project " water-sharing " warned that the results from linking the Red Sea to the Dead Sea will impact negatively on the Palestinian and Jordanian economy. This project was recently signed by the representatives of Israel , Jordan and Palestine at the World Bank in Washington .

A report of the Palestine Institute for Strategic Studies in the Gaza Strip, stated that the total cost of the Bahrain project channel is five billion dollars, and the reservoir will be at risk this amount, according to the study if it were given to the participating countries in the form of loans, which will lead to increased indebtedness of the Palestinian Authority and Jordan.

In exchange Institute estimates Institute , said the head of the PWA , in an official statement , said that the total cost of the tube after all stages is up to 11 billion dollars , without giving further details on the quotas of each of the three parties (Palestine, Jordan and Israel) in funding , or international financial institutions that can contribute to the financing of the project .

The Institute noted that the length of the canal is 180 km from the Gulf of Aqaba to the Dead Sea , and consists of tunnels and canals and tubes .

The project includes the establishment of a desalination plant with a capacity of 850 million m3 per year, and also the creation of a station to generate hydroelectric power to take advantage of the high altitude of the 507 kilometers fall of water.

The study called for those responsible in Egypt to be " of the utmost vigilance " on the negative impacts of economic and security for this project on Egypt and its national security, especially in the long term, saying " should not be parking the Egyptians when the argument currently prevailing among stakeholders that this project is not a current threat to channel Suez . " The project potentially could constitute serious competition for the Suez Canal, which is one of the main resources of hard currency for the Egyptian economy. ( Anatolia )

"Red Sea to the Dead sea holds a negative economical impact",23/12/2013, online at:  
<http://en.ammonnews.net/article.aspx?articulo=23873#.UsLT0NKaDPZ>

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## ❖ Humanitarian crisis in Gaza: no clean drinking water

Palestinian ambassador to Rome launches aid campaign

by Elisa Pinna) (ANSamed) - ROME - The Palestinian ambassador to Rome launched a campaign Friday to raise funds through movements, associations and private citizens for the population of the Gaza Strip. Those living in Gaza are suffering direly not only under the Israeli embargo and the recent military escalation, but also due to the extremely poor weather conditions that have hit the area the harder than had been seen in 70 years. "We are asking Italians to help prevent the latest in a long string of tragedies," Palestinian ambassador Mai Al-Kaila told journalists in outlining the initiative Una Coperta per Gaza ('A Blanket for Gaza'). While the photos and reports appearing in the media for Christmas focused mostly on a Jerusalem covered in snowed, another much less-than-idyllic reality was left in the shadows.

In Gaza, the rain and snow of the past few days led to a breakdown of the precarious sewage system, flooding the streets of towns and villages and swamping homes, schools and infrastructure never repaired after the 2008-2009 Operation Cast Lead. Clean water was mixed with waste water, and now there is not a single tap for clean drinking water in the entire Gaza Strip, which 1.8 million Palestinians call home. The Palestinian ambassador noted that amid this situation, Israel has not only continued with its embargo that prohibits even the entrance into the territory of medicine, but also opened its dams, through which the Israeli State's waters are flushed out into the Mediterranean, contributing to the breakdown of the entire sewage treatment system and flooding Gaza with putrid mud. The situation is entirely out of control, the ambassador said, calling for "international mobilization" for the people living in the Gaza Strip, most of whom have been left without a roof over their heads, food, drinking water, and heating. "Over half of the population in Gaza live in refugee camps," Mai Al-Kaila noted, "in tents and makeshift shelters." The only electricity plant in the Gaza Strip is also on the verge of being shut down by a severe fuel shortage due to the crossing of the Kerem Shalom border crossing with Israel.

Electricity distribution will be cut further, to only six hours per day, with the possibility of it being halted entirely within a week at the most, she warned. Encouraging the Palestinian diplomatic office to launch the campaign, the ambassador said, "were in part Pope Francis's words at Christmas and his appeal to share with the poor.

"You cannot just stand by and watch so much suffering," she said. This was the motivation to initiate a humanitarian aid campaign in collaboration with the Palestinian community in Italy and the friendship association with the Palestinian population. Una Coperta per Gaza aims to raise funds to deal with the severest emergencies and to sustain Gazan families, with a special focus on children. The donations (20 euros for a blanket) should be addressed to "Una Coperta per Gaza"/ Missione Diplomatica Palestinese/IBAN: IT 36 E 02008 05211 000021004086.(ANSamed).

"Humanitarian crisis in Gaza: no clean drinking water", 27/12/2013, online at:

[http://www.ansamed.info/ansamed/en/news/nations/israel/2013/12/27/Humanitarian-crisis-Gaza-clean-drinking-water\\_9828834.html](http://www.ansamed.info/ansamed/en/news/nations/israel/2013/12/27/Humanitarian-crisis-Gaza-clean-drinking-water_9828834.html)

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## ❖ **Atlas Shows Environmental Change in Vulnerable Arab Region**

*First Report of its Kind Uses Satellite Images to Track Land-use Change, Urban growth and Shrinking Water Bodies*

The pace of environmental change in the Arab region may be faster than in the rest of the world due to growing populations and increasing environmental pressures, according to a new report released today.

The United Nations Environment Programme (UNEP) and the Abu Dhabi Global Environmental Data Initiative (AGEDI), supported by the Environment Agency – Abu Dhabi (EAD) released The Arab Region: Atlas of Our Changing Environment.

The Atlas examines the environmental change that has taken place at more than 80 locations across the Arab region, using a combination of on-the-ground photographs, current and historical satellite images, with a narrative based on extensive scientific evidence.

“Before-and-after” studies in the atlas clearly demonstrate the pace of development in the region, offering compelling examples of wide-ranging environmental change, including land use change, urban growth, degradation of marine and coastal areas, altered hydrology and shrinking water bodies, loss of habitats and impacts of climate change.

The Atlas images serve to highlight the distinctive environmental circumstances and challenges faced in the Arab region, from limited freshwater resources, rapid urbanization, depletion of natural resources, and the vulnerability of many Arab settlements to environmental risks and natural disasters.

For example, water scarcity is a key environmental issue in 19 of the 22 countries. Very low and highly variable annual rainfall makes the region particularly vulnerable to climate change impacts, and per-capita water availability is expected to halve by 2050. Coupled with increases in temperature, these changes will intensify pressure on natural and physical systems.

Desertification and land degradation afflicts 17 of the countries, placing limited arable lands at further risk (only 14.5 per cent of the total land area is arable). This can cause transboundary issues such as food insecurity and human migration.

Biodiversity is declining due to habitat degradation and loss. The total number of known threatened species in the region stands at 1,746, with a majority of them critically endangered.

Many of these major issues are interrelated and most are a direct consequence of increasing populations and environmental conditions associated with climate change.

Additionally, the Arab region is subject to a variety of natural hazards—the arid to hyper-arid climate lends itself to frequent drought, which is the region's most-pressing natural hazard.

Between 1980 and 2008, droughts, earthquakes, floods and storms affected more than 37 million people in the region and caused damage estimated at US\$20 billion.

The Arab region has faced 276 disaster events in the past 25 years and more than 40 per cent of these natural disasters occurred in the past five years.

The Atlas brings to light stories of these environmental changes through images showing visual evidence of changes taking place in the land, water and atmosphere, and covering trans-boundary issues like river basins, transboundary conservation areas and pollutants. It also illustrates how humans have positively or negatively altered their surroundings and continue to make observable and measurable changes to the Arab region and its environment.

Although the challenges depicted are striking, the atlas examines the opportunities that these challenges present, as well as some of the innovative responses that are being implemented in the region.

For example, many Arab nations have established special institutions for environmental management and sustainable development, and improvements in health and education create building blocks for accelerating this sustainable development.

The Atlas also sheds light on the unique environmental issues faced by each country, and tracks the individual progress each is making towards achieving the goal of Ensuring Environmental Sustainability, as part of the United Nation's Millennium Development Goals.

Aimed at environmental policymakers, nongovernmental organizations, the private sector, academics, teachers and the public, the atlas will bring local-level changes to the attention of global audiences and support improved decision-making and policy formulation for a more sustainable future.

The Atlas is the latest addition to a series of atlases coordinated by UNEP that began in 2005 with the launch of a global atlas – “One Planet, Many People.” This new atlas is an important addition to the growing suite of UNEP atlases that aim to contribute to a better understanding of the dynamics of environmental change.

#### Tracking Progress towards Environmental Sustainability

The measures of progress towards meeting environmental sustainability under MDG 7 are tracked from 1990 to present using five indicators: proportion of forested lands, number of urban slum dwellers, access to improved water sources, access to improved sanitation and proportion of protected areas.

Though progress has been made towards meeting targets for some of these indicators, it has been slow and uneven across the Arab countries. Obstacles to meeting targets include shortcomings in aid or assistance, the current global economic crisis, local environmental conditions brought about by climate change and lack of effective governance.

#### Images of Our Changing Environment

With nearly 140 paired satellite images showing change over time in each of the Arab countries, the Atlas provides visual evidence of sometimes drastic change occurring in the region over a relatively short span of years.

Landscape changes that are noteworthy and common to many of the countries include: the greening of the desert and increased irrigated agriculture; expansion of oil fields; deforestation and vegetation loss, insect infestations or harvesting for fuel wood; unchecked urbanization, development of coastal areas and impacts from severe weather events.

- The development of countless big-cities in the Arab region is one of the most striking impressions the atlas provides. Cairo, Algiers, Beirut, Casablanca, Amman, Sana'a, Riyadh have all experienced extensive and rapid development of their urban areas.
- Coastal developments such as Mesaieed Industrial City (Qatar), Aden (Yemen), and Qatif and Tarut Islands (Saudi Arabia), have transformed the coastal and marine environments, with at times, grave consequences (oil pollution, destruction of coral reefs, mangroves and seagrass ecosystems).
- The greening of the desert shown in Al Ain(UAE) and the Kuwait-Iraq Separation Border displaying Kuwait's conservation and resource protection are testament to efforts in the region to improve environmental conditions and conserve water resources.
- Wafra Farms in Kuwait has expanded their food production to include aquaculture of Nile tilapia in order to supplement the fish industry, and has established greenhouses to improve crop production. Greenhouse agriculture has been implemented at a large scale in Syria—the growth of this controlled agriculture was catapulted by recurring drought, the need to improve agricultural efficiency and to meet increased demands for food production internally and abroad, nevertheless with possible environmental impact.
- The Taparura Project in Sfax, Tunisia, is a poignant example of projects that are being launched in the region to revive urban areas and reintegrate their coastlines.
- Perhaps the most compelling story of environmental change is the revitalization of the Mesopotamian Marshlands, which suffered a tragic loss of wetlands from 1950 through 1990, nevertheless keeping up the positive development has been a challenge

- The images from the Jiyeh Power Plant bombing in 2006 and its resultant oil spill in Lebanon and the oil fires in Kuwait as a result of the 1990 invasion by Iraqi forces, vividly show the environmental impacts of conflict.

“Atlas Shows Environmental Change in Vulnerable Arab Region”, AFED, 24/12/2013, online at:

<http://mideastenvironment.apps01.yorku.ca/2013/12/atlas-shows-environmental-change-in-vulnerable-arab-region-afed/>

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### ❖ Egypt Will Never Give Up One Drop of Its Nile Water Quota – Minister

Minister of Irrigation and Water Resources Mohamed Abdel-Motleb disclosed that consultations are currently being underway with the Sudanese and Ethiopian counterparts to render successful the forthcoming ministerial meeting to be held Khartoum during the first week of January 2014.

The meeting will probe an appropriate mechanism for pursuing the technical studies required from the Ethiopian part as well as assigning an international consultative bureau to perform them, said the Minister.

Such studies will deal with the technical details of the Renaissance Dam's storage bases, storage phases and mechanism of operations all year round, he added.

The minister went on to say that Egyptian State is dealing seriously with the Renaissance Dam crisis in cooperation with the Nile basin states, noting that the meetings of the Supreme Committee for Nile Water have resulted in promoting ties with the Ethiopian side.

He added that Egypt will never give up one drop of its Nile water quota, highlighting that all parties concerned should work on reaching an agreement that serves the interest of all Nile riparian countries through a comprehensive development.

He affirmed that the River Congo project would not affect the Egyptian share of water that comes from the Blue Nile.

“Egypt Will Never Give Up One Drop of Its Nile Water Quota – Minister”, 27/12/2013, online at:  
<http://allafrica.com/stories/201312271385.html>

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❖ **New Ethiopian dam won't affect Egypt's water supply: minister**

*Minister Mohamed Abdel Moteleb says a new dam in Gondar will not affect water flow to Lake Nasser*

The construction of a new dam in Ethiopia will not affect the supply of water flowing to Egypt, said Egyptian Minister of Irrigation and Water Resources on Saturday.

Construction on the Megech Dam, located near the Ethiopian city of Gondar, began earlier this month and has been allocated funding of approximately USD \$125m, according to privately-owned Ethiopian Walta and its Information and Public Relations Center. The dam is planned to hold 1.8 billion cubic metres of water when it is constructed, and will be used for irrigation purposes and drinking water for Gondar.

The effects of the dam have already been studied, said Egyptian minister Mohamed Abdel Moteleb, and have been presented by the Ethiopian government as part of one of the projects included in the eastern Nile Basin Initiative, an initiative that all Nile Basin countries have agreed upon.

Abdel Moteleb added that studies of the dam conducted by Egypt demonstrated that it would not have an effect on the volume of water flowing to Lake Nasser, south of the Aswan High Dam.

The Egyptian Ministry of Foreign Affairs announced on Sunday that nine foreign policy working groups, comprised of intellectuals, experts, and leaders from inside and outside the ministry, met to discuss Egypt's water security in the presence of irrigation and water resource experts.

A statement issued by the foreign ministry said the groups discussed “not only how to maintain Egypt's historical legal share of water, but how to increase it to meet requirements for development”.

They also addressed “sources of potential threat and how to deal with them in order to preserve vital Egyptian interests and safeguard the national security of the country”.

The talks hosted by the foreign ministry are part of a larger framework in which the working groups are scheduled to address other topics related to Egypt's foreign affairs.

A delegation from Egypt, which will include Abdel Moteleb, plans to join Sudan and Ethiopia delegations in January in Khartoum for a third round of talks to agree on the formation of an experts committee.

This committee will be tasked with overseeing the implementation of recommendations made by the International Committee of Experts, who have studied the effects of Ethiopia's Grand Renaissance Dam, which Egypt fears could affect its share of Nile water.

Abdel Moteleb also announced that another study on the effects of the Grand Ethiopian Renaissance Dam that will be completed between six months and one year, and will be referenced heavily throughout upcoming discussions.

"New Ethiopian dam won't affect Egypt's water supply: minister", 29/12/2013, online at:  
<http://www.dailynewsegypt.com/2013/12/29/new-ethiopian-dam-wont-affect-egypts-water-supply-minister/>

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### ❖ Egypt to send public delegations to Nile Basin neighbors

The Arab Water Council declared the adoption of a public delegation project. This is a new attempt, among the successive Egyptian attempts, to support the ties of cooperation between the Egyptian people and the peoples of the remaining upstream Nile countries, and to open the horizons for deepening mutual trust.

The delegation is supposed to set off from Egypt to the upstream Nile countries every three months. It will include representatives of political and popular forces, intellectuals, folk art groups, artists, singers, university students, doctors and engineers who will work on visiting these countries and making direct contact with people in the streets, far removed from diplomatic and governmental political endeavors.

The idea of the Nile delegation was part of the recommendations of the two-day workshop held by the Arab Water Council on Dec. 1-2. *Al-Monitor* attended this workshop, during which participants discussed ways of working with civil society organizations to develop an Egyptian action plan. This plan would work on solving the crisis of the [current conflicts](#) between the Nile countries over the distribution of the river's water.

Mahmoud Abu Zeid, president of the Arab Water Council and former minister of water resources and irrigation, asserted at the end of the workshop that the council adopted the project of a public Egyptian delegation in the east Nile countries as a start. The delegation is supposed to travel to north and South Sudan and Ethiopia to communicate directly with the people and to effectively rebuild trust between societies. In the future, the activity of the delegation is supposed to expand to include the remaining upstream Nile countries.

Moreover, the delegation will seek to foster relations between civil society associations and the media in the Nile countries through field workshops, and will establish a water media observatory to exchange information about the Nile Basin. A water database will support the observatory.

The role of the Nile delegation will be supported by other continuous activities throughout the year to build mutual trust among the Nile Basin countries. This will be done through conducting consecutive training sessions in each Nile country under the supervision of the Arab Water Council. One training session will prepare media cadres who are specialized in water affairs. Diplomas will be granted to

those who pass the session, thus making them competent to work in media covering Nile water issues. Media exchange, especially television drama, will be promoted in a way that blends the upstream and downstream societies.

Abu Zeid clarified during the workshop that the Arab Water Council is working on quickly implementing the workshop's recommendations.

Hussein Atfi, secretary general of the Arab Water Council and former minister of irrigation, told *Al-Monitor*: “The delegation project adopted by the council is very different from the activity of the Egyptian diplomatic public delegation, which conducted several tours in the Nile Basin countries after the Jan. 25 Revolution. This project entails direct contact among the people through folklore parties and plastic art exhibitions, rather than meetings with governmental officials. It is a public movement that is not unilaterally held by Egyptians toward the Nile Basin countries. Instead, it is a common spot where politicians, people, artists and cultured figures from all Nile countries will gather. A camp will be set up once in every country to constitute a gathering for the whole Nile area.”

Atfi added that all issues related to organization and funding of the delegations were discussed, and they are set to take off from Egypt. Then, groups from the remaining Nile countries will join them to tour Sudan, South Sudan and Ethiopia, to begin with, then a delegation will be sent twice or thrice every year to include all Nile countries.

Engineer Ahmad Bahaa, president of the Nile Water Sector and manager of the technical cooperation file between Egypt and the Nile Basin countries, confirmed during the negotiation meetings over the [Renaissance Dam](#) that the Egyptian government has welcomed the initiative. He noted that Cairo asserted it is convinced of the importance of the public and non-governmental efforts in widening the door to dialogue and cooperation among the [Nile Basin countries](#).

Bahaa told *Al-Monitor*: “The role of these delegations is definitely supportive and vital and backs the political and technical roles. However, as people of the government, we hope that this role will offer guidance and awareness and will issue a well-studied and consensual message.”

The Egyptians are keeping up their attempts to overcome the crisis threatening their water share in the Nile. This has become their worst fear under the persisting political conflict at the governmental

level. The Ethiopian Renaissance Dam has become the biggest concern for Egyptians since it threatens their water share in the Nile, especially since Sudan blessed its inauguration of the dam.

“Egypt to send public delegations to Nile Basin neighbors”, 27/12/2013, online at: <http://www.al-monitor.com/pulse/originals/2013/12/egypt-nile-crisis-public-delegations.html>

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

### ❖ Egypt turns to business, civil society in Nile water dispute

A state of controversy and conflict has been ongoing between Egypt and countries of the Nile Basin for the last four years, as politicians and experts have failed to reach a legally binding agreement for joint management of the Nile River waters. This has led to a move toward involving civil organizations and institutions to find popular [alternatives to negotiations](#) in an attempt to bridge the gaps between points of view and reduce the tensions between countries of the [Nile River Basin](#).

To that end, a [meeting was held](#) at the beginning of December in Cairo among representatives of Egyptian, Sudanese, South Sudanese, Ethiopian and Eritrean civil society organizations, backed by UNESCO and the Arab Water Council in an attempt to guarantee the ability of civil organizations to bridge diverging viewpoints and end the dispute between countries bordering the Nile River. The meeting also aimed to reduce the effects of the various governments' political conflict on the relations between the peoples of the Nile River Basin, find a way to maintain an open line of communication between these peoples, empower the culture of peace and minimize the effects of any official attempts to exacerbate the conflict or cause damage to any of the countries that border the Nile.

The two-day discussions, attended by *Al-Monitor* as part of the corps of representatives from civil society, international donors and governmental agencies, ended with the possibility of nongovernmental organizations (NGOs) playing an effective role in strengthening the lines of communication between Nile Basin countries and the adoption of a social services agenda that benefits the people of the region. Attendees agreed on the formation of teams that would exchange information pertaining to water and sanitation needs, as well as to prompt governments to hasten the process of solving the people's problems, promising to overcome remaining hurdles and providing the needed financial and political support.

Disagreements between Egypt and the other Nile River Basin countries, especially Ethiopia, have escalated following the insistence of Addis Ababa's government on building the [Renaissance Dam on the Nile](#), to which Cairo objects for fear that it might compromise Egyptian water security and reduce its share of water. Negotiations between technical committees from Egypt, [Sudan and Ethiopia](#) have failed, so far, to reach a clear understanding on the dam. Furthermore, Egypt refused in May 2010 to join the Entebbe Nile River Basin Initiative treaty, because it contained articles that did not recognize

Egypt's historically established quotas of Nile waters and gave signatory states the right to build facilities on the Nile without consulting with downstream countries.

Menjichia Werkinah, a leader of one of the Ethiopian NGOs that deal with water issues, told *Al-Monitor*, “It is necessary for governments to again sit around the negotiating table and find solutions to all contentious articles and subjects, without creating political problems between the countries of the Nile Basin. There is no time for conflict at this time, when peoples are suffering from poverty, hunger and disease and at a time when they possess important water resources that can be exploited for everyone's benefit.”

“We are working on programs to support the [Nile Basin Initiative](#), educate NGOs and involve them in solving water issues, as well as conduct field work in remote areas of Nile Basin countries aimed at providing water and sewage services, in addition to supporting popular discourse between civil organizations in remaining Nile Basin countries,” he added.

Werkinah also said, “In Ethiopia, there is a sort of governmental communication with and support to civic organizations. But we also face the problem of funding our projects, which are backed by certain international bodies. Unfortunately, most of them cannot reach local organizations in various Ethiopian cities.”

An Egyptian diplomatic source said in an interview with *Al-Monitor*, “We look forward to a real role played by civil society to reduce the intensity of the conflict. We consider popular organizations to be a form of soft power capable of bolstering governmental efforts to ease tensions between Egypt and Nile Basin countries. We are also looking for ways to take advantage of these organizations and affirm Egypt's good intentions and constant striving for dialogue with peoples of the Nile Basin, to reach solutions that are beneficial to all, while reiterating that our goal is not to monopolize the waters of the Nile.”

A delegation of [popular, partisan and political personalities](#) managed to achieve a qualitative success in restoring negotiations and communications with Ethiopia after a visit conducted in May 2011. This bolstered the chances of popular diplomacy in coming up with new solutions and alternatives to official negotiations between governments, which continue to fail to reach any resolutions that gain the acceptance of upstream countries and the downstream nations of Egypt and Sudan.

Hamad Ahmad, the head of the Egyptian-South Sudanese Friendship Association, said, “Through our association, we are trying to establish a nongovernmental avenue for cooperation in water-related affairs between Egypt and South Sudan, while emphasizing cross-cultural communication between

the two countries and attracting donors to back small-scale developmental projects in service-deprived villages and provinces of South Sudan. We do not get caught up in politics, lest our efforts for communication be spoiled. There is an agreement between Egyptian and South Sudanese members of the association not to discuss contentious issues in our meetings, as we try to develop the social conditions necessary for acceptance of cooperation projects between Egypt and South Sudan in Nile water-management issues.”

The head of the Egyptian-Ethiopian Business Council, Ayman Issa, affirmed to *Al-Monitor*, “The investments carried out by the Egyptian private sector in Ethiopia managed to reduce tensions engendered by the water issues between the two countries. Despite the possible damage to investments resulting from political tensions, both countries’ official leaderships continuously strive to maintain mutual economic interests, while refraining from associating them with the conflict over the waters of the Nile. We realize the need that Ethiopia has for development, and the huge challenges it is facing to achieve economic growth. The private sector is a form of soft power that Egypt can wield if Egyptian-Ethiopian relations become associated with their mutual economic interests.”

Egypt set up an important business bearing the name of Al-Nasr during the reign of late Egyptian President Gamal Abdel Nasser. That company played a strong economic role in a number of African nations, particularly Nile River Basin states, following their independence from colonial powers in the 1960s. Egypt relied on that same company to administer its economic and political relations in Africa, until the era of late President Anwar Sadat.

The current Egyptian administration is trying to exploit all nontraditional avenues to strengthen its relations with African nations. It's particularly trying to do so with those of the Nile River Basin by relying on this soft power, as a result of the continued conflict over the Nile waters and the inability to reach technical or diplomatic solutions that safeguard Egypt’s historic interest in those waters.

“Egypt turns to business, civil society in Nile water dispute”, 23/12/2013, online at: <http://www.al-monitor.com/pulse/originals/2013/12/egypt-business-renaissance-dam.html>

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### ❖ China targets cement, batteries, metals in anti-pollution push

(Reuters) - [China](#) will raise standards for the production of cement, batteries, leather and heavy [metals](#) as part of its efforts to cut air, water and soil pollution, the environment ministry said on Friday.

Beijing, facing growing public anger over smog, contaminated food and unclean water, has said it will tackle the environmental costs of more than three decades of unbridled growth.

It has promised to get tough with under-regulated industries such as cement, iron and [steel](#) and [coal](#) but the central government has traditionally struggled to impose its will on powerful industrial sectors and local governments.

According to a notice issued by the Ministry of Environmental Protection ([www.mep.gov.cn](http://www.mep.gov.cn)), [China](#) produced 2.21 billion tons of cement in 2012, 56 percent of the global total. Beijing aims to close around 370 million tons of outdated capacity by 2015.

The notice said the sector alone is responsible for 15-20 percent of China's total particulate matter (PM) emissions, a major cause of hazardous smog, as well as 8-10 percent of nitrogen oxide and 3-4 percent of sulphur dioxide, components of acid rain.

The revised guidelines will force producers to install advanced anti-pollution technologies to meet the new standards, including the control of at least 60 percent of nitrogen dioxide emissions.

[China](#) is also the world's biggest producer and exporter of batteries, including solar cells, and the new measures will seek to impose better standards and higher barriers to entry for the sector, a major source of heavy metal pollution in the country's soil and water.

Beijing's new leadership has sought to place less emphasis on economic growth and more on creating what it describes as "the beautiful China".

But it said earlier this week that it was struggling to meet a number of key environmental targets for the 2011-2015 period as a result of faster-than-expected economic expansion.

"China targets cement, batteries, metals in anti-pollution push", 27/12/2013, online at:

[http://www.reuters.com/article/2013/12/27/us-china-pollution-idUSBRE9BQ09420131227?utm\\_source=Circle+of+Blue+WaterNews+%26+Alerts&utm\\_campaign=3b84004884-RSS\\_EMAIL\\_CAMPAIGN&utm\\_medium=email&utm\\_term=0\\_c1265b6ed7-3b84004884-250657169](http://www.reuters.com/article/2013/12/27/us-china-pollution-idUSBRE9BQ09420131227?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=3b84004884-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-3b84004884-250657169)

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### ❖ Kerala worst in access to protected drinking water: Survey

CHENNAI: Nearly 88.5% of households in rural India have access to improved source of drinking water while the corresponding figure for urban India is 95%, says the latest National Sample Survey released on Tuesday. An improved drinking water source is one that is protected from outside contamination.

Rural households in Kerala are the worst hit with only 29.5% having access to safe drinking water, according to the study. In Tamil Nadu, it is 94%. The survey was undertaken between June and December in 2012. "The improved sources of drinking water include bottled water, piped water into dwelling, piped water to yard/plot, public tap/standpipe, tube well/borehole, protected well, protected spring and rainwater collection," said director general of National Sample Survey A K Mehra.

Surprisingly, states like Bihar, Uttar Pradesh and Rajasthan are above national average when it comes to people having access to safe drinking water. In Bihar, 97.6% of rural households and 99.7% of urban households have improved source of drinking water and in UP, it is 96.6% and 99.2%, respectively.

"Many of these households depend on piped water supply and also have access to protected village wells, which are classified as an improved source. But in Kerala, people have separate wells in their house plots and they are not counted as a protected source," said a water expert.

"Inclusion of bottled water in the survey makes it skewed. Only rich people have access to bottled water. How many poor people in villages have the capacity to purchase bottled water? During my tour of rural Tamil Nadu, I have been to places where people still carry water from far-off places. I feel the survey does not portray a correct picture of availability of safe drinking water," said Shekhar Raghavan, director of Rain Centre, an NGO working for the promotion of rainwater harvesting.

The survey also found that only 16% of Nagaland's rural households have sufficient drinking water throughout the year. The availability of drinking water from the principal source was considered sufficient throughout the year if in each of the calendar months the availability of drinking water was sufficient.

"Kerala worst in access to protected drinking water: Survey", 26/12/2013, online at:

[http://articles.timesofindia.indiatimes.com/2013-12-26/india/45592031\\_1\\_drinking-water-bottled-water-piped-water-supply](http://articles.timesofindia.indiatimes.com/2013-12-26/india/45592031_1_drinking-water-bottled-water-piped-water-supply)

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❖ **Effective policies needed against land, water degradation: Agriculture Commissioner**

*Governor K. Rosaiah distributes degree certificates at TNAU convocation*

Well planned, long-term national/regional land conservation and rehabilitation programmes, and water policies, are needed to control land degradation and the increase in multi-sectoral competition for water, J.S. Sandhu, Agriculture Commissioner, Ministry of Agriculture and Co-operation, said here on Thursday.

Addressing the 34 convocation of Tamil Nadu Agricultural University, he pointed out that in India nearly 45 per cent of the geographical area was under various kinds of degradation and the techniques for conserving soil and water resources were already available, but not widely or systematically applied.

“Inappropriate and uncontrolled land uses are major causes of degradation and depletion of land resources. This is serious because the productivity of huge areas of land is declining just when populations are increasing rapidly and there is demand on the land to produce more food, fibre, and fuel.

With the world population expected to reach 8 million by 2030, pressure on the environment will continue to mount,” the Commissioner said. He expressed concern over the fact that even if the agricultural sector had performed sufficiently well over the past decades, the question remained whether it could supply at the levels necessary to keep abreast of the anticipated demand. India would face a rapid expansion of food demand and major shifts in its composition, thereby requiring an acceleration of agricultural growth rates beyond the present four per cent target rate, or a rise in imports, Mr. Sandhu added.

The private sector was becoming an increasingly important participant in agricultural research, production and marketing. But it only showed interest in it as a business case and thus failed to focus on the needs of poorer and marginal farmers.

He stressed the need for an agricultural research policy that responded to a changing agricultural, scientific and economic environment.

Governor K. Rosaiah presided over the convocation and distributed the degree certificates.

Agriculture Minister S. Damodaran announced the endowment prizes and medals. Ravendra Naidu, Chief Executive Officer and Managing Director of Co-operative Research Centre for Contamination Assessment and Remediation of the Environment (CRC CARE), South Australia, and S. Chelliah, former Director of Tamil Nadu Rice Research Institute, Aduthurai, and former Director of Research, TNAU, were conferred honorary degrees of Doctor of Science (*honoris causa*).

“Effective policies needed against land, water degradation: Agriculture Commissioner”, 27/12/2013, online at: <http://www.thehindu.com/news/cities/Coimbatore/effective-policies-needed-against-land-water-degradation-agriculture-commissioner/article5507443.ece>

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### ❖ Fresh panel to work on management of water resources

LUCKNOW: Towing the lines of previous Mayawati government, the UP cabinet on Friday constituted afresh a water commission that would look after proper management of water resources in the state.

UP chief secretary, Jawed Usmani said that the commission will be like an autonomous regulator that would take care of water management, including groundwater management, in the state. The commission will work within the framework of the state water policy. Usmani said that the commission will essentially have an advisory nature and will ensure implementation of water policy through various agencies.

Sources said that the commission will look into the prospects of issuing licence to the users of fast depleting groundwater. It will also collect data related to surface and groundwater in the state, analyse it and control distribution. It can also decide the water tariff for domestic, irrigation and industrial use.

In 2009, introduced 'water budgeting' to check fast depleting of water resources. The then BSP government had formed UP Water Management and Regulation Commission (UPWMRC). In fact, the state became the second state after Maharashtra to constitute such a commission for water regulation and management. The commission was supposed to decide draw river basin-wise plans to identify availability of surface and ground water resources and regulate its distribution for domestic, irrigation and industrial use. However, the commission became defunct a year later.

Meanwhile, the state cabinet also decided to make changes in the policy to award those who fought for the democratic rights during the emergency period (June 25 to March 1977). According to the cabinet decision, the ones whose records have been damaged will be identified and endorsed by the district administration. Usmani said that the district administration will ensure that imprisonment should not have happened because of political reasons

“Fresh panel to work on management of water resources”, 28/12/2013, online at:

[http://articles.timesofindia.indiatimes.com/2013-12-28/lucknow/45651531\\_1\\_water-resources-state-water-policy-water-tariff](http://articles.timesofindia.indiatimes.com/2013-12-28/lucknow/45651531_1_water-resources-state-water-policy-water-tariff)

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## ❖ LCCI seeks early construction of Kalabagh Dam

Sunday, December 29, 2013 - Lahore—Advocating an early [construction](#) of Kalabagh Dam, the Lahore Chamber and Industry (LCCI)said that the dam is inevitable for the progress and prosperity of the country as it will produce power at an average cost of Rs1.5/kwh. This cheap power will annually displace costly power worth approximately Rs300 billion with consequential savings of costly oil imports. This saving alone would wipe out the current account deficit, boost reserves and strengthen the rupee.

The LCCI President Engineer Sohail Lahsarif expressed these views while addressing a Press Conference on Kalabagh Dam jointly organized by the Lahore Chamber of commerce and Industry and Sind Tas Water Council on Saturday. LCCI [Vice President](#) Kashif Anwar, Chairman STWC Muhammad Saleman Khan, Advocate Nisar Safdar from KPK, Col Abdul Razaq Bugti, Engineer Saeed Iqbal Bhatti, Chairman Tehrik-e-Tameer Klabagh Dam Major Siddique Rehan and Engineer Malik Muhammad Tufail also spoke on the occasion.

Engineer Sohail Lashari said that the dam will wipe out load-shedding and increase industrial output by \$5-6 billion a year. Its contribution to value addition in agricultural output could go up to \$10 billion a year. The dam has the potential to wipe out poverty as the project will benefit every province. He said that there was no threat to Nowshehra city as it is 150 feet above the water level. He said that Kalabagh Dam, was not only beneficial to Punjab alone but it would be more helpful in erasing poverty from Sindh, Balochistan and Khyber Pakhtun Khawa.

The dam would irrigate 800,000 acres of land that is located 100-150 feet above the Indus river level in the province. He said this land could only be brought under cultivation if the river level is raised that is only possible if Kalabagh Dam is built. He said the other alternative is to pump the water which is very costly. He said that creditable studies have indicated that pumping water for potential cultivable land would cost farmers Rs 5000 per acre per year while canal water after [construction](#) of Kalabagh Dam would cost only Rs400 per acre per year.

He said the Kalabagh Dam issue has been so much politicized that a consensus would not be possible therefore the civil society would have to play its role for early [construction](#) of Kalabagh Dam as new large water reservoirs would benefit every Pakistani.

He said that all the stakeholders should show some greater maturity on the issue of Kalabagh. It is the high time that all undue stands should be brushed aside to save the country from that era of darkness. He said that unlike Pakistan, India is constructing dams at every possible site. It has left us decades behind and coming time does not promise any good thing either.

He said that every one knows that the existing dams are constantly silting up leaving ever decreasing capacity to store water. The [construction](#) of Kalabagh dam along with other new dams is desperately needed to store adequate water. According to a conservative estimate about 30 million acre feet of water is being wasted into the sea because the country has no big water reservoirs to store it.

More importantly, as a result of melting of glaciers due to [global warming](#), a sword of Damocles remains hanging over our heads in the shape of floods. An opinion gained widespread support across the country that the losses of recent floods in Pakistan which are estimated to be more than 45 billion dollars could have been reduced if big dams and water reservoirs were in place, he added.

He said that another significant aspect connected with the [construction](#) of Kalabagh Dam is the surety of sufficient amount of electricity at very cheap price of Re one per unit. The country's dependence on power generated through thermal sources is costing us way too much causing to face insurmountable challenges to remain competitive both in national and international markets.

He said that the present scenario leads to import oil worth over US\$ 12 billion a year which is costing us dearly while causing to face insurmountable challenges to remain competitive both in [national](#) and international markets. The LCCI [Vice President](#) Kashif Anwar said that the controversies about Kalabagh dam are hitting the entire country and adding to masses sufferings therefore a campaign should be launched to ensure its early [construction](#).

“LCCI seeks early construction of Kalabagh Dam”, 29/12/2013, online at:

<http://pakobserver.net/detailnews.asp?id=228364>

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## ❖ Saudis Budget 16.6 Billion Riyals for Water Desalination Works

Saudi Arabia is allocating 16.6 billion riyals (\$4.4 billion) for desalination projects, Abdulrahman Al-Ibrahim, governor of the Saline Water Conversion Corp., said in an e-mailed statement.

The spending budgeted for next year will pay to complete the Ras al-Khair power and desalination plant in Ras al-Khair Industrial City on the Persian Gulf. The complex will have capacity to process 1 million cubic meters (264 million gallons) of desalinated water a day.

“Budget allocations for desalination projects have grown steadily over the past five years,” Al-Ibrahim said in the statement today. “These projects are of great importance as we face challenges in the growing demand for desalinated water as a strategic option to secure water supplies.”

Saudi Arabia, with the Arab world’s largest economy, is expanding water works to supply the energy industry and a population that has quadrupled in 40 years to 30 million people. The desert kingdom is the world’s biggest producer of desalinated water, attracting foreign investors including Veolia Environnement SA and Suez Environnement Co.

“Saudis Budget 16.6 Billion Riyals for Water Desalination Works”, 25/12/2013, online at: [http://www.bloomberg.com/news/2013-12-25/saudis-budget-16-6-billion-riyals-for-water-desalination-works.html?utm\\_source=Circle+of+Blue+WaterNews+%26+Alerts&utm\\_campaign=a3f0a6b476-RSS\\_EMAIL\\_CAMPAIGN&utm\\_medium=email&utm\\_term=0\\_c1265b6ed7-a3f0a6b476-250657169](http://www.bloomberg.com/news/2013-12-25/saudis-budget-16-6-billion-riyals-for-water-desalination-works.html?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=a3f0a6b476-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-a3f0a6b476-250657169)

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## ❖ Draff to dram: water cleanser created in chance study of whisky byproduct

*Leigh Cassidy explains how her grain research led to a system which can purify water poisoned by arsenic in Bangladesh*

A project to remove arsenic from groundwater in [Bangladesh](#) began by accident, when Dr Leigh Cassidy from Aberdeen University was working on technology to treat industrially contaminated [water](#) in the UK.

Cassidy, who was working on her Phd, thought draff, the residue of barley husks that is a byproduct of using grain in brewing alcohol products such as whisky, would act as a cleansing agent. The idea was brusquely dismissed by one colleague.

"I was told 'don't be stupid it will never work'," Cassidy says. "But someone else said to go ahead."

Cassidy did indeed go ahead, modifying the draff with a secret ingredient, transforming it into a cleansing agent. She is now credited as the inventor of the appropriately named Dram – she admits to trying to think of a clever name. Dram is short for device for the remediation and attenuation of multiple pollutants. Instead of using draff in Bangladesh, Dram will use local ingredients such as coconut shells or rice husks to act as the organic filter media that traps the arsenic.

The arsenic crisis in Bangladesh is considered by the World Health Organisation to be the largest mass poisoning of a population in human history. About 77 million people are at risk of arsenic poisoning despite the hundreds of millions of dollars spent in addressing the problem. One in five deaths in Bangladesh are due to arsenic poisoning.

Dram works using a stainless steel unit connected to contaminated water in a tubewell. The water is pumped into the bottom of the unit where it rises up through a bed of the organic filter media, binding the arsenic. Clean water is displaced and forced out of the top of the unit and through the built-in tap.

[PurifAid](#), a Canadian social enterprise based in Toronto, Canada, founded by Shahreen Reza, who is of Bangladeshi origin, is working with Brac, the Bangladeshi NGO, to deploy Dram in Bangladesh. PurifAid is using a \$100,000 (£60,000) award from [Grand Challenges Canada](#) to start the project in

Bangladesh as soon as the political situation calms down. Tension is high in the country before the scheduled January elections.

Reza had been thinking of a water purification scheme for Bangladesh ever since she was a student at the prestigious Institut d'Etudes Politiques in Paris in 2010 and found out about Dram on the web. She is drawn to the device because of its simplicity and requires no change in behaviour from villagers.

"The water is decontaminated at a rate of 1,000 litres an hour, which is at industrial levels," Reza says. "The filter, which must be replaced every four to six months, can be used as biofuel and the units only need a simple cleaning every four to five months."

PurifAid plans to use a franchise business model for Dram. Local villagers will filter and deliver purified water, perform maintenance, acquire new filters, and dispose the used ones. Dram's designers say it removes 95% of arsenic from contaminated water within five minutes of exposure and claim it is cheaper to manufacture than existing alternatives such as the Sono Filter, the market leader, which sells for about \$40.

No price has been decided yet for Dram, but it is expected to cost about \$10. Villagers are expected to invest collectively to purchase, install and operate Dram on existing tube wells.

"Draff to dram: water cleanser created in chance study of whisky byproduct", 25/12/2013, online at:  
[http://www.theguardian.com/global-development/poverty-matters/2013/dec/25/draff-dram-water-cleanser-whisky?CMP=twi\\_fd&utm\\_source=Circle+of+Blue+WaterNews+%26+Alerts&utm\\_campaign=a3f0a6b476-RSS\\_EMAIL\\_CAMPAIGN&utm\\_medium=email&utm\\_term=0\\_c1265b6ed7-a3f0a6b476-250657169](http://www.theguardian.com/global-development/poverty-matters/2013/dec/25/draff-dram-water-cleanser-whisky?CMP=twi_fd&utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=a3f0a6b476-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_c1265b6ed7-a3f0a6b476-250657169)

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### ❖ The international misrule of law

*By Brahma Chellaney*

*Professor of Strategic Studies at the New Delhi-based Center for Policy Research, is the author of Asian Juggernaut, Water: Asia's New Battleground, and Water, Peace, and War: Confronting the Global Water Crisis.*

On the face of it, China's recent declaration of an air defense identification zone (ADIZ) extending to territories that it does not control has nothing in common with America's arrest and strip-search of a New York-based Indian diplomat for allegedly underpaying a housekeeper she had brought with her from India. In fact, these episodes epitomize both powers' unilateralist approach to international law.

A just, rules-based global order has long been touted by powerful states as essential for international peace and security. Yet there is a long history of major powers flouting international law while using it against other states. The League of Nations failed because it could not punish or deter such behavior. Today, the United States and China serve as prime examples of a unilateralist approach to international relations, even as they aver support for strengthening global rules and institutions.

Consider the US, which has refused to join key international treaties - for example, the 1982 United Nations Convention on the Law of the Sea (UNCLOS), the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses (which has not yet entered into force), and the 1998 International Criminal Court Statute. Indeed, unilateralism remains the leitmotif of US foreign policy, and this is also reflected in its international interventions, whether cyber warfare and surveillance, drone attacks, or efforts to bring about regime change.

Meanwhile, China's growing geopolitical heft has led to muscle-flexing and territorial claims in Asia that disregard international norms. China rejects some of the same treaties that the US has declined to join, including the International Criminal Court Statute and the Convention on the Law of the Non-Navigational Uses of International Watercourses (the first law to establish rules on the shared resources of transnational rivers, lakes, and aquifers).

Indeed, despite their geopolitical dissonance, the world's most-powerful democracy and its most powerful autocracy have much in common when it comes to how they approach international law.

For example, the precedent that the US set in a 1984 International Court of Justice (ICJ) case filed by Nicaragua still resonates in China, underscoring that might remains right in international relations.

The ICJ held that America violated international law both by supporting the contras in their insurrection against the Nicaraguan government and by mining Nicaragua's harbors. But the US prevented Nicaragua from obtaining any compensation by vetoing UN Security Council resolutions that called for enforcement of the ICJ's judgment.

China still hews to Mao Zedong's belief that "power grows out of the barrel of a gun." Indeed, while China ratified UNCLOS, it then reinterpreted the provisions to justify cartographic aggression in the South and East China Seas. Worse still, China has refused to accept the UNCLOS dispute-settlement mechanism, thereby remaining unfettered in altering facts on the ground. The Philippines has filed a complaint against China with the International Tribunal for the Law of the Sea. China, however, has simply refused to participate in the proceedings, as if it were above international law.

Whatever the tribunal's decision, China will simply shrug it off. Only the Security Council can enforce an international tribunal's judgment on a noncompliant state. But China wields a veto there and will block enforcement of an adverse ruling, just as the US did in the Nicaragua case.

China's new ADIZ, while aimed at solidifying its claims to territories held by Japan and South Korea, is similarly provocative, because it extends to areas that China does not control, setting a dangerous precedent in international relations. Japan has asked its airlines to ignore China's demand for advance notification of flights, even if they are merely transiting the new zone and not heading toward Chinese territorial airspace.

By contrast, the US has advised American carriers to obey China's prior-notification demand. There is a reason for this: Although the prior-notification rule in American policy applies only to aircraft headed for US national airspace, in practice the US demands advance notification of all flights through its ADIZ, regardless of their intended destination.

If other countries emulated the example set by China and the US by establishing unilateral claims to international airspace, a dangerous situation would result. Binding international rules are thus

imperative in order to ensure the safety of fast-growing commercial air traffic. But who is supposed to take the lead when China and the US have pursued a unilateralist approach on this issue?

Now consider the case of the Indian diplomat, Devyani Khobragade, whose treatment India's national security adviser called "despicable and barbaric." True, as a consulate-based diplomat, Khobragade enjoyed only limited diplomatic immunity under the 1963 Vienna Convention on Consular Relations. But this convention guarantees freedom from detention until trial and conviction, except for "grave offenses." Can a wage dispute qualify as a "grave offense" warranting arrest and humiliation? Would the US tolerate similar treatment of one of its consular officers?

The harsh truth is that the US interprets the Vienna Convention restrictively at home but liberally overseas, in order to shield even the military and intelligence contractors that it sends abroad. A classic case involved the CIA contractor Raymond Davis, who fatally shot two men in 2011 in Lahore, Pakistan. Claiming that Davis was a bona fide diplomat with its Lahore consulate, and thus enjoyed immunity from prosecution, the US accused Pakistan of "illegally detaining" him, with President Barack Obama defending him as "our diplomat in Pakistan."

Despite a widely held belief that the current international system is based on rules, the fact is that major powers are rule makers and rule imposers, not rule takers. They have a propensity to violate or manipulate international law when it is in their interest to do so. If universal conformity to a rules-based international order still seems like a distant prospect, an important reason is that countries that should be leading the charge still so often behave like rogue states.

"The international misrule of law", 24/12/2013, online at: <http://www.azernews.az/analysis/62868.html>

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### ❖ Former Phoenix mayor: Partner with Mexico to desalinate seawater

PHOENIX — The former mayor of the nation's sixth-largest city wants Arizona to form a partnership with Mexico that would build desalination facilities and tap in the ocean's virtually limitless supply of water.

Phil Gordon, who served as mayor from 2004 to 2011, said bringing in desalinated water from the Gulf of California would not only secure Arizona's future but increase collaboration with Mexico and create economic opportunity on both sides of the border.

"I want to see a desalination plant built because, as mayor of Phoenix, I knew how valuable water is and will continue to be," he said. "Not only the Valley but in the world water is going to become, if it's not already, more valuable than gold or oil."

Raising the idea in a November column published by The Arizona Republic, Gordon said one benefit of desalinated water would be allowing Mexico and Arizona to create more farmland.

"Use that water for putting all those millions of acres of desert in northern Mexico and southern Arizona into food production and become not only a water-producing area but also a breadbasket for the United States and the world," he said.

Acting now would provide a secure long-term water supply before an emergency leaves the state and northern Mexico scrambling, Gordon said.

"It's better, to me, to start addressing that today than to wait until a crisis of lack of water, lack of food, and then all of the sudden you have, really, disruption in the state and in Mexico," he said.

Sandy Fabritz-Whitney, director of the Arizona Department of Water Resources, said she agrees with Gordon that desalination would provide the state a drought-proof supply of water in the long run.

"Desalination is definitely a part of our future; it's completely feasible," Fabritz-Whitney said.

She also likes the idea of involving Mexico.

"We share so many issues with them, and water is a big one," she said. "Partnering with Mexico, we'd get more useable water and more jobs — it's a win-win."

Kathleen Ferris, executive director of the Arizona Municipal Water Users Association, said that desalination has downsides such as the amount of energy required to treat and transport the water as well as dealing with brine. She said she hasn't written off the idea, however.

“This is a difficult and expensive prospect. We’re going to need some really big thinkers and a very sophisticated approach,” Ferris said.

Former Sen. Jon Kyl, who sponsored legislation that led to agreements on American Indian tribes’ water rights in Arizona, said the state needn’t be concerned with desalination right now.

“Thanks to good planning with the CAP, the SRP and the Groundwater Management Act, we’re not in a situation right now to invest in something as expensive as desalination,” he said. “Quite possible by midcentury, but not right now.”

Kyl noted that Israel and other countries in the Middle East already get water through through desalination, so the processes and costs should improve as time passes.

He said he doesn’t see the economic opportunities Gordon raises as reasons to get into desalination.

“You don’t do it just to create jobs,” he said.

Sandy Bahr, director of the Sierra Club’s Grand Canyon chapter, said there’s no upside to desalination and that Arizona’s focus should be on conserving the water it already has.

“At a time when we’re trying to reduce energy use and get it from cleaner sources, building massive desalination plants to feed unsustainable development is just not a good choice,” she said.

But Gordon said committing to desalination would be in keeping with the pioneering spirit that envisioned a bustling city in the desert and created the water infrastructure to make it happen.

“If we look back over 100 years ago, people thought that the original ranchers and farmers of the Salt River Project were crazy, and yet we couldn’t survive today without that forward thinking,” he said.

“Former Phoenix mayor: Partner with Mexico to desalinate seawater”, 26/12/2013, online at: [http://www.insidetucsonbusiness.com/news/former-phoenix-mayor-partner-with-mexico-to-desalinate-seawater/article\\_f39d6b8e-6e67-11e3-b598-001a4bcf887a.html](http://www.insidetucsonbusiness.com/news/former-phoenix-mayor-partner-with-mexico-to-desalinate-seawater/article_f39d6b8e-6e67-11e3-b598-001a4bcf887a.html)

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### ❖ What does the 'World Energy Outlook 2013' report say?

The annual "World Energy Outlook" report for 2013 was issued by the International Energy Agency (IEA) on Nov. 12, 2013.

"The rise of unconventional oil and gas and of renewables is transforming our understanding of the distribution of the world's energy resources," the report said. "The center of gravity of energy demand is switching to the emerging economies," particularly China, South Asia and the Middle East.

The projections for the upcoming years suggest that China is about to become the largest oil-importing country and that India will become the largest importer of coal by the early 2020s. The United States, on the other hand, is moving steadily toward meeting all of its energy needs by 2035. "These changes represent a re-orientation of energy trade from the Atlantic basin to the Asia-Pacific region," the report said.

While climate change is currently on the agenda, two-thirds of carbon emission is caused by energy generation, and considering the growing energy demand in the world, it is believed that it will be difficult to achieve the climate change goals. Crude oil has averaged \$110 per barrel since 2011. But unlike crude oil prices, the prices of other fossil fuels have been subject to considerable regional variations. While differences in regional energy prices cause large electricity price differentials, this situation has a negative impact on competitiveness between countries.

The report suggests that renewables will account for nearly half of the power generation in 2035. Accordingly, there will be a major increase in China in renewable energy generation, which is thought to be more than the increase in the European Union, the United States and Japan combined. Although "coal remains a more common and cheaper option than gas for generating electricity in many regions, policy interventions to curtail air pollution, mitigate climate change and to improve efficiency will be critical in determining its long-term prospects," according to the report's executive summary. China is a prominent country in this regard as well. China uses as much coal as the rest of the world combined. While coal use is expected to decline in Organization for Economic Cooperation and Development (OECD) countries, coal demand expands by one-third in non-OECD countries, particularly in China and South Asia.

Although the report asserts that technology and high prices are "opening up new oil resources," it says in its brief assessment that "this does not mean the world is on the verge of an era of oil abundance." Also, it is believed that problems will persist in terms of competitiveness, meeting demand and the market. Besides, the report puts forward that China will continue to increase its fossil fuel consumption especially for energy, and will become the leader in its consumption in upcoming years.

“What does the ‘World Energy Outlook 2013’ report say?”, 29/12/2013, Today’s Zaman, online at:  
<http://www.todayszaman.com/news-335049-what-does-the-world-energy-outlook-2013-report-say.html>

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