



ORSAM WATER BULLETIN

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





Issue 59

ORSAM WATER BULLETIN

16 January-22 January 2012

- **❖** Atalay: Turkish water can benefit all Cyprus
- **❖** Hydroelectric Dam In Turkey May Cause Environmental Catastrophe In Georgia
- **❖** Water, water everywhere in North Iraq, soon there will be none to drink
- **Scottish botanists to restore Garden of Eden**
- **4** Dams due for launching
- **❖** Water summit underlines growing importance in Middle East
- **❖** MP: Half of domestic mineral water polluted in Iran
- ❖ French parliament report accuses Israel of water 'apartheid' in West Bank
- **❖** FoEME calls on the Israeli Government and the Palestinian Authority to Negotiate a New Water Accord
- **Business group: Legalize at-home water recycling**
- * 'Blueprints for Ibn Hammad Dam ready'
- ***** Kishon River clean-up project lacking funding
- **Despite rain, water crisis persists**
- 'Higher temperatures, extreme weather coming'
- **❖** FoEME Calms Water War Rhetoric Between Palestine and Israel
- **PWA chief: World must act on Israel's water apartheid**
- ❖ Study finds most Tel Aviv area wells too polluted to draw drinking water
- ***** Israel's water apartheid?
- **Growing the world's most expensive lemons**
- **❖** 57% of Disi Project has been completed, minister
- **❖** Government slams French water 'apartheid' report
- **❖** Masterpak Geomembrane Lining to Preserve Water in Large Lebanese Irrigation Lake
- **❖** Abu Dhabi to host water summit from next year
- **Arid** capital to get water
- **Growing concerns over fresh water in the UAE**
- **Egypt looks to make up for lost ground with Nile Basin countries**



- **❖** Kenya, Egypt to work together on water conservation
- ***** Ethiopia: Forced Relocations Bring Hunger, Hardship
- ❖ Nizami for Jihad against India's water terrorism
- **❖** Mega dams: campaigning against the plans of the Indian government
- ❖ Crisis in the Yemeni Economy: A Troubled Transition to Post-Hydrocarbon Growth
- ***** UK eyes ME water sector



❖ Atalay: Turkish water can benefit all Cyprus

Deputy Prime Minister Beşir Atalay said yesterday that "Greek Cyprus should pull itself together" as energy and water that will come from Turkey will be important for the island.

Turkey is working on a project to transport water from southern Turkey to northern Cyprus with pipelines. "This water is sufficient to meet the whole island's need," said Atalay, implying that the Greek side will also benefit if they reach an agreement with Turkish Cyprus.

Atalay also stressed the importance of the tripartite meeting between Turkish Cypriot and Greek Cypriot leaders along with the United Nations Secretary-General Ban Ki-moon in Greentree, New York, between Jan. 22 and 24, saying that it will be "a turning point." Atalay said it can be regarded as a success if the parties agree to hold another meeting together with the guarantors after the New York meeting.

Atalay also said if the peace talks fail in the New York meeting, then "Northern Cyprus will continue on its route" with an economy greater strengthened. Atalay also said the rotating EU presidency of Greek Cyprus, which it will hold as of June 2012, could be postponed until the peace talks were solved.

Atalay said Ban was excited over the meetings but could not see that excitement or hope in both the Greek and Turkish sides of the island. "Maybe it is because of the previous peace talks that they were not hopeful about," Atalay said, adding that Ankara and the Turkish Cyprus government want a just solution for the island.

"Atalay: Turkish water can benefit all Cyprus", 20/01/2012, online at: http://www.hurriyetdailynews.com/atalay-turkish-water-can-benefit-all-cyprus-.aspx?pageID=238&nID=11865&NewsCatID=338

BACK TO TOP



* Hydroelectric Dam In Turkey May Cause Environmental Catastrophe In Georgia

A hydroelectric project in Turkey's northeastern Ardahan district will change the flow of the Mtkvari River, the biggest water artery in the South Caucasus.

A planned dam in northeastern Turkey, the Beshik Haya cascade reservoirs, will divert most of the Mtkvari River from the Caspian Sea to the Black Sea, according to Georgia's Green Party. This could trigger an environmental catastrophe, warns the group, not to mention a crisis in local foreign relations.

Ecological and human consequences

If it changes the flow of the Mtkvari River, the dam will also cause water levels to fall in the portion of the river that runs through Georgia.

Riparian ecosystems along the river will obviously suffer from a drastically reduced water supply. And lower water levels in the river will force authorities to recycle sewage from Tbilisi and Rustavi, raising the risk of epidemics among Georgia's population.

Azerbaijan, Georgia's neighbor to the southeast, is also heavily dependent on the portion of the Mtkvari River that flows into the Caspian Sea.

"An artificially created water deficit might cause tension between the states" of Georgia, Azerbaijan, and Turkey, Georgian Green Party Head Georgi Gachechiladze told Democracy & Freedom Watch, a Georgian publication.

Dams damaging Turkey's foreign relations in all directions

The Beshik Haya project is not the first Turkish hydropower dam to adversely affect human and ecological communities in Turkey and beyond. Nor is it the first to hurt Turkey's diplomatic standing in its region.

Just last summer, the United Nations issued a <u>report on how Turkish dams violate human rights</u>, both in and out of its borders.

Turkish hydro projects along the Tigris and Euphrates Rivers, for example, have dried up large swathes of former marshland in Iraq and Syria as well as dams that desert communities rely on, forcing entire communities to resettle and severely affecting local plant and animal life.

Sadly, the UN report seems to have changed little about Turkey's hydroelectric plans.

It's too soon to tell whether Georgia's Green Party might prevail against the Beshik Haya project. If Georgia and Azerbaijan form an alliance around the issue, however, Turkey will have to alter its plans or estrange two of its closest neighbors.

"Hydroelectric Dam In Turkey May Cause Environmental Catastrophe In Georgia", Julia Harte, 14/01/2012, online at: http://www.greenprophet.com/2012/01/hydroelectric-dam-in-turkey-may-cause-environmental-catastrophe-in-georgia/



❖ Water, water everywhere in North Iraq, soon there will be none to drink

The semi autonomous state of Iraqi Kurdistan has plenty of water. For the time being at least. But experts warn that a water crisis is coming and that, despite plans to build dozens of dams, local authorities are doing nothing about it.

Her face is covered in sweat and she turns to check that her daughter is alright. Halima Mustafa, 43, is carrying a large bucket of water on her head and she has another large bucket in her hand. Her 10-year-old daughter Coral is beside her, also carrying two buckets of water. Everything drips as the pair makes their way slowly home.

Halima lives in Shoresh, a town southwest of the city of Sulaymaniyah, in the semi-autonomous state of Iraqi Kurdistan. Every day Mustafa must walk around four kilometres to bring water to her family of six.

"This is a journey that we have to make every three days," the fatigued mother said, her voice trembling, as she returned. "The government ration the water supply and we only get water every ten days."

Mustafa's family live in extreme poverty and they can't afford to dig their own well. "The cost of digging a well is around IQD2 million [around US\$1,600]," Mustafa told NIQASH. "We need water and can't survive without it so I must go and get it, despite the pain it causes in my head and my back. Some evenings, the pain is so bad I can't even sleep," she complained.

Official statistics suggest that almost 14 percent of the people in Iraqi Kurdistan don't have easy access to drinking water. According to figures from the region's Ministry of Planning, around 3,850,000 people there do have easy access to drinking water. But the total population of Iraqi Kurdistan is around 4,500,000. Which suggests that there are approximately 650,000 people who must do similar to what Mustafa does.

Most of the people who don't have easy access to water or water on tap are living in villages. They collect water from nearby tanks or wells; the local authorities fill the tanks every few days. But as Mustafa says, "the government keeps making promises to increase the amount of water easily available but it has never kept these promises."

And it's not like Iraqi Kurdistan doesn't have enough water. Most of the region's water comes from collected rainfall, hundreds of rivers, some of which are fed by melting snow from surrounding mountains, groundwater sources and three large dams.

However analysts say that mismanagement and the lack of a scientific plan for water management is causing suffering in the region; the effects of climate change and population growth may also cause a problem with water resources.



"The methods used for the administration of water supplies in the Kurdistan region are weak," Dr Jamil Jalal, who works in the department of geography at the University of Sulaymaniyah, says. "There are not enough dams to collect rain and as a result, huge quantities of water are wasted."

In terms of the amount of water naturally available to Iraqi Kurdistan, sources at the Ministry of Agriculture and Water Resources say that over three quarters of it is not collected. Additionally future projections indicate that the amount of water coming into the region will eventually decrease.

Mainly this is because around half of the sources of the rivers in the region are actually located outside the region. Iran and Turkey have both built dams and set up irrigation projects that decrease the amount of water reaching Iraqi Kurdistan. Unofficial sources say that these kinds of projects in neighbouring states have already caused at least30 seasonal streams to dry up. And both Iran and Turkey have plans to build more dams.

Seasonal streams – that is waterways that only flow for part of the year – provide the bulk of surface water sources in Iraqi Kurdistan. It is thought that these kinds of streams provide the region with just over half of all of its water.

Local engineer Mohammed Idriss, who specializes in hydrology, suggests that if dams were to built on these rivers the water that they collected could be extremely valuable later, in the dry season.

"Most of the seasonal water in the region passes through the mountains," Idriss explained. "From an engineering point of view, this would allow the construction of dams. Unfortunately, up until now not one dam has been built."

Despite plenty of warnings – the United Nations has repeatedly written about world water scarcity due to population increase, wastage and climate change – Idriss believes that the authorities in Iraqi Kurdistan have not taken adequate measures to protect the region's populace from an inevitable water shortage.

"Nearly every country in the world is preparing itself for this crisis," Idriss said. "What is the government of Iraqi Kurdistan doing about it?"

The government of Iraqi Kurdistan does have a plan, it insists. Akram Ahmed, Director of Reservoirs and Dams at the local Ministry of Agriculture, points out that the region has around 180 suitable areas in which dams could be built and that the authorities are actually looking at what could be done to avert any future water crisis.

"But the government is not the only party responsible for this," Ahmed said. "People need to get engaged on this issue and start saving water."

Today, there are three dams in Kurdistan and these dams are managed by the Kurdistan region's authority: Dukan on the Little Zab river, the Darbandikhan on the Sirwan river and Dohuk on the Dohuk river. These dams were built by successive Iraqi governments, starting from 1958.



In 2009, the government of Iraqi Kurdistan approved a strategic plan to develop the local agricultural sector. According to this plan, eight large dams and 19 small and medium sized dams were to be built around the region over the next five years.

However according to information obtained by NIQASH, only four small dams have actually been completed out of the 27 planned. These are the Hamamok dam in Koya, the Bawa Shaswar dam in Kifri and the Hassan Kanosh and Gali dams the areas of the same name.

Ahmed admits that the dam building has not taken place according to the original timetable. But, as he says, "we are still striving to create a practical and scientific management plan for water resources in the region. I remain optimistic about our capacity to contain any crisis."

Unfortunately the regional government has something of a history of failure when it comes to dam building. The Bakhma dam, on the Greater Zab, a tributary of the Tigris River, is a good example of this. The idea dates back to the early 1930s but up to 1991, only one third was completed. In 2003, the federal government allocated US\$5 billion for the completion of the dam but it has never happened and nobody seems to know exactly why.

One government statement suggested the dam building might cause earthquakes. But engineers dispute this and government critics suggest that actually the most likely reason is the fact that the dam would submerge the hometown of the president of Iraqi Kurdistan, Masoud al-Barzani.

So until something more happens that would realise the plans to build more dams and improve the water supply, most of the people that live without water on tap depend on wells.

And over the past three years the number of licensed wells in Iraqi Kurdistan has reached 19,448. But this is far from a safe source of drinking water. Most of the wells drilled recently collect water from near the earth's surface and this may well be contaminated. The Ministry of Health in Iraqi Kurdistan has statistics that say that out of every 1,000 infant deaths, 24 can be attributed to polluted water.

Additionally the Ministry of Planning in Iraqi Kurdistan says that the region's population will continue to increase; it will amount to 5,500,000 by 2015 and at that stage, current water sources in the region will no longer suffice.

Given all of these issues, critics say that government efforts in this area are totally insufficient. "There is, and will be, a genuine water crisis in our region," Dr Jalal said. "If the government continues to ignore this reality, then the new generation will suffer because of lack of water too."

Some, like Mustafa's daughter Coral, who helps her mother carry water back to her family's house every week, already know this all too well.

"water, water everywhere in North Iraq, soon there will be none to drink", 19/01/2012, online at: http://www.niqash.org/articles/?id=2973

BACK TO TOP



Scottish botanists to restore Garden of Eden

WOULD you Adam and Eve it? A team of Scottish botanists are heading to Iraq to help restore an area thought to be the biblical Garden of Eden.

The Centre for Middle Eastern Plants (CMEP), based at the Royal Botanic Garden Edinburgh, has joined forces with conservation charity Nature Iraq to rebuild the delicate eco-system of the Iraqi marshlands, which were drained by Saddam Hussein in the 1990s. The area south of the city of Basra, is regarded by scholars as being the location of the Old Testament Garden of Eden.

In the Book of Genesis, it is described as at a place of four rivers. Since the early days of Christianity this has often been interpreted as being the Mesopotamian Marshes, where the waters of the Tigris and the Euphrates and two other rivers once met before climate change transformed the once highly-fertile region into marshes.

During the trip in March, the Scottish team will record and register plants in the area as part of an ambitious project to restore the marshlands. They will also help to train Iraqi botanists to take the work forward.

An exhibition in Scotland later this year – Paradise Restored – will explain the plan to a wider public. Sophie Neale, a CMEP researcher involved in the project said: "This will cover its [the area's] history as the Garden of Eden and the cradle of civilization and recent restoration work after it was drained by Saddam Hussein."

Tony Miller, director of the CMEP said: "Nature Iraq's first project is the restoration of the marshes and we are working with them. Without the marshes there is no wildlife in the region. They support the bio- diversity of the area which is rich in bird life and in the past was very important for fish. There is a complete eco-system that is in the process of being restored."

Prior to his downfall and execution in 2006, Saddam drained the wetlands to punish the indigenous Marsh Arab tribes, who had risen up against him in the aftermath of the first Gulf War in 1991. The former Iraqi dictator built a network of canals to channel water from the Euphrates and Tigris around the marshes, dumping it straight into the Persian Gulf.

Within months the marshes, which had covered 15,000 sq km, were reduced to less than 10 per cent of their original size, killing off wildlife and plants and destroying delicate eco-systems which had been there for thousands of years.

Slowly, however, the biodiversity of the region is returning under the control of Iraqi engineer Azzam Alwash, head of Nature Iraq. He is carrying out work to refill the marshes, which had turned to desert, with water.

Around 50 per cent of the area has since been refilled, and the ecosystem and wildlife is slowly recovering.



Later in the year, the Botanics will host the exhibition to document the work being undertaken in Iraq, as well as projects in other parts of the Middle East, including Turkey, Afghanistan and Syria. Miller described it as an important project for humanitarian, as well as botanical, reasons. "It is scientifically interesting for us and it's also something that I feel we should be doing. If we are going to go into a country like Iraq in a military sense it seems quite reasonable that we should try to help rebuild the country afterwards as well."

Not only have scientists recognised the area's importance. At the start of the second Gulf War, with Allied troops about to invade southern Iraq from Kuwait, Lieutenant Colonel Tim Collins, commander of the Ist Battalion, the Royal Irish Regiment, famously told his men: "This is the site of the Garden of Eden, of the Great Flood and the birthplace of Abraham – tread lightly there."

"Scottish botanists to restore Garden of Eden", 22/01/2012, online at: http://www.scotsman.com/scotland-on-sunday/scotland/scottish_botanists_to_restore_garden_of_eden_1_2070891



4 Dams due for launching

With four dams becoming operational in addition to the other 11 dams commissioned in the current Iranian year (to end March 20), the water storage capacities of dams will be increased by some 3.2 billion cubic meters, said the managing director of Iran Water Resources Company on Tuesday.

Mohammad Hajrasouliha said Machkund dam in Sistan-Baluchestan province, Shamil and Banan in Hormuzgan province, Darungar in Khorasan Razavi province and Baghgol in Esfahan province are the four dams which will come on stream in the remaining days of the current Iranian year, IRNA reported.

The official said the four projects built at a cost of \$1.2 billion will be launched during the '10-Day Dawn' celebrations to mark the anniversary of the 1979 Islamic Revolution (February 1-10). He added that two of them are national projects while the other two are provincial projects.

Commenting on the storage capacity of Tehran province's dams with respect to precipitation, he said, given the favorable rainfall in the current year which was 70 percent higher than the average, the storage capacity of the province's dams reached 644 million cubic meters, indicating a 38-percent growth compared to the figure for the same period lat year, which was 466 million cubic meters. Earlier on Sunday, an official with the Iranian Energy Ministry announced new agreements with Armenia on the construction of a dam and two power plants on Aras River by the both countries.

Mohammad-Reza Rezazadeh, the managing director of Iran's Water and Power Resources Development Company (IWPCO), said that concrete steps were taken to implement the two projects during the recent visit of the President Mahmoud Ahmadinejad to Armenia, Mehr News Agency reported.

He stated, "In fact this project is a joint exploitation from Aras border River which extends over 40 kilometers between the two countries."

He underlined according to the project one power plant is to be constructed in Iran and one in Armenia, both on the banks of the Aras River.

The official noted that electricity generated from the power plants will be sold to the investor to procure funds for implementing the project. This, he said, will guarantee the purchase of electricity.

"4 Dams due for launching", 18/01/2012, online at: http://www.zawya.com/story.cfm/sidZAWYA20120118050755

BACK TO TOP



❖ Water summit underlines growing importance in Middle East

Water's significance to the Middle East has been underlined with the announcement that an International Water Summit will be held in Abu Dhabi next year.

The summit will be held alongside the World Future Energy Summit in 2013, in association with the International Water Association (IWA).

Speaking at a press conference, Dr Rashid Ahmad Bin Fahd, United Arab Emirates Minister of Environment and Water said the new initiative was a response to the growing importance the UAE government gives to water.

"Sheikh Mohammad [Crown Prince of Abu Dhabi] underlined in a lecture last month that water is much more important than oil for the UAE and its people," he said.

"As a result of the increased pressure on this valuable resource due to various factors including overpopulation, agricultural and economic growth, and unsustainable consumption patterns, various countries around the world are currently facing real problems with water resources."

"Climate change has increased the pressure on this resource as well," added Bin Fahd.

Water scarcity – both in terms of clean drinking water and that used for agricultural irrigation – are already putting pressure on many countries, including those in the Middle East.

Hydro-climatic hazards such as droughts and floods are likely to further exacerbate the problem and could put more pressure on existing social tensions in the region.

This announcement comes the same week as a European Commission event entitled 'Climate change and water security in the Middle East' looks to address these problems.

In 2011 a study from risk analysts Maplecroft found much of the Gulf and North Africa ranking high or extreme for water stress, compared to much of Europe where water stress is low.

Many commentators are already predicting that water resources will be the next big issue in these regions which have already experienced political and social unrest over the last year.

"Water summit underlines growing importance in Middle East", 19/01/2012, online at: http://www.rtcc.org/policy/water-summit-underlines-growing-importance-in-middle-east/



❖ MP: Half of domestic mineral water polluted in Iran

There is weak state control for enterprises producing mineral water in Iran. About 50 percent is polluted, member of the Iranian Parliamentary Health Commission Abduljabbar Kerimi was quoted by the Iranian parliament's official website icana.ir as saying.

He said half the country's polluted mineral water was confirmed by the Health Ministry. It submitted the relevant statistics to the parliament.

A major reason for low-quality mineral water is the discrepancy with domestic factories standards, he said.

"MP: Half of domestic mineral water polluted in Iran", 17/01/2012, online at: http://en.trend.az/news/society/1980994.html



❖ French parliament report accuses Israel of water 'apartheid' in West Bank

Israeli Embassy in Paris had no foreknowledge of the French parliament's Foreign Affairs Committee report, which was published two week ago, and thus did not refute it or work to moderate it.

The French parliament's Foreign Affairs Committee published an unprecedented report two weeks ago accusing Israel of implementing "apartheid" policies in its allocation of water resources in the West Bank.

The Israeli Embassy in Paris had no foreknowledge of the report and thus did not refute it or work to moderate it. Foreign Ministry officials called the incident "a serious diplomatic mishap."

The report said that water has become "a weapon serving the new apartheid" and gave examples and statistics that ostensibly back this claim.

"Some 450,000 Israeli settlers on the West Bank use more water than the 2.3 million Palestinians that live there," the report said. "In times of drought, in contravention of international law, the settlers get priority for water."

The author of the report was Socialist Party MP Jean Glavany, who in the past served as agriculture minister under French President Lionel Jospin and as cabinet secretary for President Francois Mitterrand.

The Foreign Affairs Committee had assigned Glavany to report on the geopolitical impact of water in confrontation zones throughout the world. He visited Israel and the Palestinian territories on May 17-19 of last year and met with several senior government officials, including Energy and Water Resources Minister Uzi Landau and Water Commissioner Uri Shani.

Both the Foreign Ministry and the embassy in Paris were aware of the visit and knew that Glavany planned to write a report. But Israeli Ambassador to France Yossi Gal did not follow up on Glavany's work.

No one in the embassy attempted to get a draft copy of the report so as to ensure that its conclusions were not overly harsh. Nor were Israel's allies on the French Foreign Affairs Committee contacted to ascertain whether the report could be moderated.

The embassy only learned about the report a few days after it appeared on the French parliament's website, when the Foreign Ministry's European desk in Jerusalem, which heard about it from an outside source, informed the embassy.

The report states that water is not allocated fairly to West Bank Palestinians and that Palestinians have no access to the territory's underground aquifers. Glavany said Israel was perpetrating a "water occupation" against the Palestinians.



"Israel's territorial expansion is seen as a 'water occupation' of both streams and aquifers," the report said.

It also said that "the separation wall being built by Israel allows it to control access to underground water sources" and to "direct the flow of water westward."

The report accused Israel of "systematically destroying wells that were dug by Palestinians on the West Bank," as well as of deliberately bombing reservoirs in the Gaza Strip in 2008-09. It also claimed that "Many water purification facilities planned by the Palestinian Water Ministry are being 'blocked' by the Israeli administration."

Senior Foreign Ministry officials said the Paris embassy had been asleep at the switch.

"This report is a serious mishap that has caused diplomatic damage and has seriously damaged Israel's image in France," one senior official said.

Foreign Ministry spokesman Yigal Palmor said Glavany had inserted extreme terms into the report on his own, at the last minute, without consulting other members of the report's working group.

"These unacceptable remarks surprised his colleagues in the working group, who were shocked to find them in the final version after it was published, after Israeli diplomats called their attention to them," Palmor said.

The report, he continued, "was loaded with the language of vicious propaganda, far removed from any professional criticism with which one could argue intelligently." Moreover, the report's author omitted numerous facts and acted "with blatant tendentiousness."

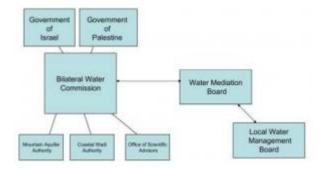
"After embassy staffers pointed out the exceptional seriousness of the wording ... all the working group members disassociated themselves from [the report], including the chairman, who sent an official letter to the ambassador renouncing responsibility for the report's anti-Israel expressions," Palmor added.

"French parliament report accuses Israel of water 'apartheid' in West Bank", 17/01/2012, online at: http://www.haaretz.com/print-edition/news/french-parliament-report-accuses-israel-of-water-apartheid-in-west-bank-1.407685



❖ FoEME calls on the Israeli Government and the Palestinian Authority to Negotiate a New Water Accord

In Response to the <u>French Parliament's Report</u> on the Policies of Water Allocation in the West Bank, <u>Friends of the Earth Middle East</u> calls on the Israeli Government and the Palestinian Authority to Negotiate a New Water Accord



Following the French Parliament's Report on the policies of water allocation in the West Bank, Gidon Bromberg, Israeli Director of Friends of the Earth Middle East, says: "The report highlights the tremendous importance of promoting a solution acceptable to both peoples on the issue of water. On the other hand, instead of igniting the region on an issue where it is clear that an agreement can be reached, the governments need to urgently advance a solution that would serve the interests of both sides – meeting the water supply needs for Palestinians, as well as management of sewage and wastewater that affects the Israeli side.

Nader Khateeb, Palestinian Director of <u>Friends of the Earth Middle East</u>, adds: "The present arrangement of the Oslo-Joint Water Committee has failed terribly. We need to reach an agreement that allows the Palestinians to secure their water rights that will ensure a fair share in the transboundary groundwater and surface water resources, and to jointly manage these shared water resources on both sides of the Green Line, according to the <u>Model Water Accord</u> put forth by <u>Friends</u> of the Earth Middle East".

The Model was prepared for the organization by water experts, Dr. David Brooks and Dr. Julie Trottier, who specialize in the water aspect of the Israeli-Palestinian conflict. A first draft of the Model was published in November 2010. The Model suggests a new system of joint management of all shared water sources between Israelis and Palestinians, in a way that allows for a more balanced and fair allocation of this important resource for the benefit of the Palestinians, and with an emphasis on environmental interests – preventing over-pumping and sewage pollution – that would benefit both sides.

"FoEME calls on the Israeli Government and the Palestinian Authority to Negotiate a New Water Accord", 17/01/2011, online at: http://foeme.wordpress.com/2012/01/17/foeme-water-accord/

BACK TO TOP



& Business group: Legalize at-home water recycling

By recycling gray water Israel's private sector could save 150 million cubic meters of water annually. Talkbacks (9)

The government should legalize the implementation of gray water systems in homes, the Grey Water Division of the Federation of Israeli Chambers of Commerce announced on Thursday.

As the country enters its eighth year of drought and continues to experience desertification, the government should "immediately advance a law for the recycling of gray water," something that thousands of people are already doing illegally, according to Paul Steiner, chairman of the division.

By recycling gray water – residual water from showers, washing machines, etc. – Israel's private sector could save 150 million cubic meters of water annually, an amount equivalent to 40 percent of that sector's consumption.

This amount is also about the same as the capacity of the two desalination plants that the country is currently building, Steiner said.

"Piracy is rampant and today – about 12,000 private facilities for recycling water in Israel are in operation, through which citizens are using shower and laundry water for garden watering and toilet flushing in their homes," he added.

Legalizing the industry would create about 1,500 jobs in the market for installing and managing the systems. It would also encourage exports, which could reach \$100 million within five years, according to Eran Tal, director of the Grey Water Division at the Tel Aviv and Central Israel Chamber of Commerce.

"In a country in which the Water Authority publishes a sweeping ban on watering private and public gardens between the months of December and April, something that leads to the drying of gardens during the winter months, it is fitting to make every effort to promote the most practical and greenest solution of recycling gray water," Tal said.

Arguing that the process is safe and reputable, Tal noted that it is being used regularly in many Western countries such as Germany, Australia and Cyprus, where partial recycling systems are installed in every home and subsidized by the state.

Tal called upon the Health Ministry and other relevant government officials to consider implementing such a law.

"If Israel is heading toward desertification, the installation of gray water recycling systems in every home will be an ideal solution to the future water shortage," he said.

While the Water Authority does not oppose using gray water systems in homes, it also does not support the notion, according to spokesman Uri Schor.



"The Water Authority isn't against it, although it won't [increase the water supply] from the country's point of view," Schor told The Jerusalem Post on Thursday.

While allowing a private citizen to recycle his or her own water could certainly be beneficial, Israel takes an even more beneficial approach by recycling sewage on a broader level, according to Schor.

"By now, more than 75% of the sewage in Israel is recycled," he said. "When we recycle sewage it includes water from showers, etc. – it includes gray water and black water."

Without the inclusion of gray water in the sewage recycled, the wastewater would be much thicker, and the country would end up with less treated water available for agricultural use, Schor explained.

Although private water recycling might help raise public awareness about the importance of water, this cannot occur as long as the Health Ministry remains against the idea, he said.

The Health Ministry declined to comment about the issue.

"Business group: Legalize at-home water recycling", Sharon Udasin, Jerusalem Post, 17/01/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=4115



'Blueprints for Ibn Hammad Dam ready'

AMMAN — Blueprints for the four-million-cubic-metre (mcm) Ibn Hammad Dam in Karak Governorate are ready, with construction expected to start this year, according to a government official.

"Studies and blueprints for the Ibn Hammad Dam are completed and construction will commence once funding of the project is secured," Jordan Valley Authority Secretary General Saad Abu Hammour said.

Named after the Ibn Hammad Valley in the south, the 52-metre-high dam will help meet the increasing demand for water in the country.

Meanwhile, the JD22 million Kufranjah Dam in Ajloun Governorate is scheduled to be completed in 2014.

"Construction on Kufranjah Dam, which is designed to store 6mcm of water, started late last year. The dam will store rainwater and address the water crisis in Ajloun and Jerash governorates," Abu Hammour underscored.

He added that Kufranjah Dam water will be primarily used for drinking purposes and for irrigating crops in the Jordan Valley.

"Jordan is a pioneering country in the region in dam construction despite its limited financial resources, which hinder the ministry from establishing more reservoirs that address the country's water shortage," he noted.

Dams, though expensive to build, are vital for the Kingdom to secure its water needs, according to experts.

The Kingdom's 10 major dams are: King Talal, Wadi Al Arab, Sharhabil, Kafrein, Wadi Shuaib, Karameh, Tannour, Waleh, Mujib and Wihdeh.

They currently hold 58.3mcm, or 27 per cent, of their total capacity of 215mcm, excluding the 110mcm Wihdeh Dam, where water storage is currently experimental.

Jordan, which is considered the world's fourth water poorest country, suffers an annual water deficit of 500mcm and per capita share of water does not exceed 150 cubic metres annually, well below the water poverty line of 500 cubic metres per year.

According to official figures, 91 per cent of the Kingdom's total area of 97,000 square kilometres is arid land with an annual rainfall average of 50-200 millimetres (mm), while 2.9 per cent is categorised as semi-arid with an annual rainfall average of 400-580mm.

"Blueprints for Ibn Hammad Dam ready", 17/01/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=4111



Kishon River clean-up project lacking funding

According to plan riverbed will be dried, cleaned and made available for use as land in an area slated for a public park.

By Zafrir Rinat

The Kishon River Authority and Environmental Protection Ministry are moving ahead with a major initiative to clean up the Haifa area waterway despite the lack of guaranteed funding sources. While funding arrangements for the NIS 220 million project have yet to be finalized and risk-assessment studies for the project have yet to be completed, the authority and ministry are planning within the coming weeks to issue an international tender for the right to undertake the major clean-up project.

This first-of-its-kind project in Israel will begin with work to dry up a stretch of the river close to the Haifa area refineries. This tributary will be relocated to an area southwest of the current stretch. Some 4,000 cubic meters of polluted riverbed will be brought to the dried-up area. The riverbed will be cleaned and should be available for use as land in an area slated for a public park. Kishon River – Hagai Frid – 16012012

The polluted Kishon River in Haifa.

Photo by: Hagai Frid

The riverbed will be removed along a seven-kilometer stretch of the waterway. This is a stretch into which large quantities of industrial sewage have been spilled over the years. Some pollutants seeped deeply into the riverbed and this eliminates any possibility of the Kishon being entirely cleaned, since even if no more sewage water spills into the river, its land base will continue to contain pollutants and pose risks to water quality.

Even after the tender is advertised, the riverbed clean-up project will face a number of obstacles. The government has promised to partially fund the project, yet continues to negotiate with Haifa Chemicals Ltd. regarding the company's share of the funding. Other factories in the area have announced that they will contribute NIS 90 million to the project; the rest of the funding is to come from local councils in the Kishon area.

Still to be done are risk evaluations to assess possible dangers of riverbed cleaning techniques envisioned in this project. Also to be assessed is whether the clean-up will render the Kishon accessible to certain kinds of activities (for instance, boating).

"We hope that after the tender procedure is completed, in another few months, we will be able to carry out the riverbed purification project within a year," said Haim Hemi, the director of the Kishon River Authority.

"Kishon River clean-up project lacking funding", 17/01/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=4113



Despite rain, water crisis persists

Lake Kinneret's water level is 55 centimeters under the 213 meter red line, and a full 4.75 meters away from full capacity.

Talkbacks (19)

Although Lake Kinneret's water level rose by 1.50 centimeters following Wednesday's rain, measuring in at 213.55 meters below sea level on Thursday morning, there is still a water crisis, according to the Water Authority.

The water level is 55 centimeters under the -213- meter red line, and a full 4.75 meters away from full capacity. Only 1 centimeter of the rise between Wednesday and Thursday can be attributed to rain. The other half-centimeter is the result of a temporary halt in National Water Carrier pumping from the lake, as the system was closed for routine maintenance, Water Authority spokesman Uri Schor said.

RELATED:

China: Future center for Israeli renewable, water tech?

Erdan, PA agree: Increase water cooperation

"We rose 1 centimeter – that means we need about 475 more such days to fill the Kinneret," Schor said.

The Kinneret, he stresses, is only one of three main water sources – the other two are the mountain and the coastal aquifers. In total, the country is short about 2 billion cubic meters of water, an amount equivalent to the consumption of all the households in Israel for three years.

"We are expecting a bit more rain, but the rain has not been as strong as we hoped it would be," Schor said, noting that the winter season is already half over.

"Despite rain, water crisis persists", 13/01/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=4117



'Higher temperatures, extreme weather coming'

Environmental Protection Ministry climate change report predicts country will see decrease in rainfall, increases in temperature.

An Environmental Protection Ministry climate change report predicts that over the next decade, the country will see an annual decrease in rainfall, and increases in temperature, southern desertification, heat waves, periods of torrential rains and flooding.

"Global climate change is already here – that's a fact," Environmental Protection Minister Gilad Erdan said in a statement released by his office. "We are all experiencing the manifestation of diminishing precipitation, heat waves, floods and more."

The Environmental Protection Ministry has issued its report as part of the ministry's efforts to advance a national action plan toward adapting to climate – a plan that will be governed by a committee under the leadership of the ministry's director-general.

Ministry Chief Scientist Dr. Sinai Netanyahu assembled the report, based on research findings at the ministry's newly established Israel Climate Change Information Center, inaugurated at Haifa University in March.

The report is divided into seven categories that the researchers expected would have great impact on the country in the near future – climate, public health, water management, green building, biodiversity, economics and geo-strategy.

Among the major conclusions of the report are an expected temperature rise of between 0.3 to 0.5 degrees Celsius per decade, as well as decreased precipitation levels of between 1.1 and 3.7 percent in that same period.

In addition to rampant desertification of the country's southern lands, Israel will also likely experience periods of extreme weather – from intense heat waves to torrential rains and floods, according to the report.

With both increased dry spells and floods, the country will also probably face increased property damage and a higher frequency of forest fires. The effects of climate change on biodiversity are uncertain, the report finds, but may cause a shift in bird migration to earlier dates.

Due to both climate change an expected increase in immigration to Israel, the report also predicts an increased struggle to protect water resources, and changing sea levels will surely have an impact on civilian and military coastal installations.

"~These phenomena are not expected to slow their pace soon, but on the contrary," Erdan said. "Therefore, we are committed to taking part in the global effort that will lead to changes in behavioral patterns that will reduce greenhouse gas emissions and adaptation to a way of life that will reduce environmental impact and will be less susceptible to the damages that are a result of climate changes."

"'Higher temperatures, extreme weather coming", 10/01/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=4123



❖ FoEME Calms Water War Rhetoric Between Palestine and Israel

News that the French Parliament accused Israel of using water "apartheid" unleashed a fury of water war rhetoric that Friends of the Earth Middle East's Director Gidon Bromberg is trying to calm.

Yesterday the Israeli paper <u>Haaretz</u> reported that the French Parliament accused Israel of using water as "a weapon serving the new apartheid." Socialist Party MP Jean Glavany wrote that "450,000 Israeli settlers on the West Bank use more water than the 2.3 million Palestinians that live there." In response, Israel's <u>Government Press Office</u> released a report yesterday entitled <u>The Israeli-Palestinian Water Conflict: An Israeli Perspective</u> by Haim Gvirtzman of the <u>Begin-Sadat Center for Strategic Studies</u> at <u>Bar-Ilan University</u>. Gvirtzman places responsibility for <u>Palestine's water shortages</u> on the shoulders of the Palestinian Authority's ineffective governance.

Calming the rhetoric

In the introduction to Glavany's report, he wrote that the goal of the study was not to unleash a water war, but rather to "contribute a broader reflection on how to ensure tomorrow for future generations, and ways of water governance adapted to the needs of man and the planet."

But according to *Haaretz*, the French report accused Israel of "systematically destroying wells that were dug by Palestinians on the West Bank," and blocks "Many water purification facilities planned by the Palestinian Water Ministry."

Israeli complaints

By contrast, Gvirtzman claims that Israel has contributed to increasing the Palestinian Territory's water supply by 50% since the 1995 Interim Agreement, 30% more than was agreed. And instead of blocking water purification facilities, he claims that water problems in Palestine result from poor governance – on the Palestinian Authority side.

This seems to be a major Israeli complaint – that the PA has failed to properly manage or build sewage treatment centers, which is impacting Israel's water supply, and that they have created several illegal wells that conflict with the interim government agreement. They also claim that the issue is less dramatic than most people believe.

Gvritzman wrote that "The current per capita consumption is 150 m3/c/y for Israelis versus 140 m3/c/y for Palestinians," and that discrepancies between PA and Israeli data comes down to population counts.

The Palestinian Central Bureau of Statistics (PCBS) reported in 2004 on 2.4 million Palestinians residing in Judea and Samaria, while the American-Israeli Demographic Research Group (AIDRG) calculated only 1.4 million.

Israel has the last word

We have a poor translation of the <u>French Parliament report</u>, but Glavany seems to suggest that the Israeli civil administration has the last word when it comes to policies suggested by the Joint Water



Commission, which was set up in 1995 to oversee water management in both Israel and the Palestinian Territory. They are the main barrier to the PA's ability to improve its water supply. Sometimes a permit is granted by the JWC, and then refused either wholly or partially by the Israeli civil administration. The difficulties to obtain any permission are related to the proliferation of wild wells or cisterns.

The water situation in the Palestinian Territory is dire, of that there is absolutely no question. <u>Gaza's farmers can no longer grow food</u>, and groundwater supplies have become increasingly saline. But this problem also affects neighboring Jordan and Israel. Nature knows no boundaries, so there has to be cooperation between the three governments in order to secure everyone's survival.

Friends of the Earth Middle East

In response to the French parliament's report, the Israeli Director of <u>Friends of the Earth Middle East</u> – a well-respected non-government organization that has managed to overcome political obstacles in order to work on water issues affecting populations in Israel, Jordan, and Palestine – Gidon Bromberg said:

The report highlights the tremendous importance of promoting a solution acceptable to both peoples on the issue of water. On the other hand, instead of igniting the region on an issue where it is clear that an agreement can be reached, the governments need to urgently advance a solution that would serve the interests of both sides – meeting the water supply needs for Palestinians, as well as management of sewage and wastewater that affects the Israeli side.

As usual, Bromberg restores sanity to this ongoing debate.

"FoEME Calms Water War Rhetoric Between Palestine and Israel", 18/01/2012, online at: http://www.greenprophet.com/2012/01/water-war-palestine-israel/



❖ PWA chief: World must act on Israel's water apartheid

BETHLEHEM (Ma'an) -- The head of the Palestinian Water Authority on Tuesday said the international community must act on Israel's "apartheid" water policy in the West Bank.

In January, the French parliament's Foreign Affairs Committee issued a report which found that Israel's water policy constituted "a weapon serving the new apartheid." It noted that Jewish settlers used more than five times as much water as Palestinians and were given priority during droughts.

PWA chief Shaddad Attili said the World Bank, the UN and other international organizations had issued similar reports on Israel's denial of Palestinian water rights.

Growing awareness must be translated into international pressure on Israel to end its water apartheid, Attili said in a statement.

"Israel controls all the water resources in the occupied West Bank. It exploits these resources for near exclusive Israeli use, allocating a mere fraction of the available water supply to Palestinians. While Israelis enjoy some of the highest water consumption rates in the world, Palestinians continue to face a series of crippling water shortages artificially engineered by Israel as a matter of policy," Attili said.

The official added that Israel used water to target vulnerable Palestinian communities.

"This includes its systematic demolition of Palestinian rainwater harvesting cisterns and wells used as a means to forcibly displace Palestinian communities who depend on them for their basic water needs. The number of demolitions continues to increase, with at least 25 Palestinian wells and 32 Palestinian cisterns demolished in 2011 alone."

Negotiations to resolve the allocation of water have failed, he said, adding that the Joint Water Committee established in the Oslo Accords effectively gave Israel veto power over all Palestinian water projects.

Water is one of the six final-status issues to be resolved in a peace agreement, alongside settlements, refugees, borders, security and Jerusalem.

"Without water, and without ensuring Palestinian water rights, there can be no viable or sovereign Palestinian state," Attili warned.

"PWA chief: World must act on Israel's water apartheid", 18/01/2012, online at: http://www.maannews.net/eng/ViewDetails.aspx?ID=453288



Study finds most Tel Aviv area wells too polluted to draw drinking water

Of 166 wells operating in 1980, only 96 were still in operation as of 2011; contaminants are industrial in origin.

Almost two thirds of drinking-water wells in the greater Tel Aviv area have been declared too contaminated for use, according to a recent study.

The data, collected by the Health Ministry and the Water Authority, show that in 1980 there were 166 wells, fed by the coastal aquifer, which provided a good deal of the drinking water to the big cities in the Tel Aviv area. As of the end of 2011, 96 of them were out of operation, mostly because of contamination. The contaminants are industrial in origin, particularly from armaments production, use of fertilizers and pesticides, and contaminated sludge seeping into the ground.

Another source of pollution is the salination of the water table, which happens when too much sweet water is pumped out and is replaced by sea water. According to the Health Ministry and Water Authority figures, 32 of the wells were declared unfit for use due to a high level of nitrates, which originate in chemical fertilizers, and some of those were also found to contain toxic metals.

Eight other wells were also found to contain toxic metals. Ten wells were disqualified for containing perchlorate, a component of rocket fuel used in military manufacturing, large quantities of which leaked into the ground from the Israel Military Industries site in Ramat Hasharon.

The use of well water was completely stopped in Ramat Hasharon due to perchlorate contamination, and the city now gets its water from the National Water Carrier.

Ramat Hasharon has filed suit against the state due to the expenses it has incurred in building infrastructure to receive water from the National Water Carrier. It is believed that some 600 million cubic meters of water in the Ramat Sharon area are contaminated.

It will have to be pumped and purified, which will take 20 years and cost about half a billion shekels. If this is not done, the contamination will continue to spread, putting more groundwater at risk.

In the industrial zone of Holon, seven wells, producing some 124 million cubic meters of polluted water in an area covering 2.8 square kilometers, have had to be closed due to pollution.

Last year the Water Authority checked seven more wells in Bnei Brak, Tel Aviv and Ramat Gan, and found two of them to be contaminated. The Water Authority plans to rehabilitate the wells in the area of Tel Aviv once occupied by Israel Military Industries.

These plans include, in addition to pumping and purifying water, injecting materials into the aquifer that help dissolve the contaminants more quickly.



Contaminated wells next to 20 gas stations in the area have been cleaned up, and materials speeding up dissolution of contaminants have been injected into a contaminated area on Yigal Alon Street in Tel Aviv, which the Water Authority says has reduced the contamination there.

"Study finds most Tel Aviv area wells too polluted to draw drinking water", 18/01/2012, online at: http://www.haaretz.com/print-edition/news/study-finds-most-tel-aviv-area-wells-too-polluted-to-draw-drinking-water-1.407880



Israel's water apartheid?

Op-ed: Slanderous European accusations put State of Israel's very existence at risk

The French parliament's Foreign Affairs Committee just published an unprecedented report accusing <u>Israel</u> of implementing "apartheid" in its allocation of water in Judea and Samaria. The report said that water has become "a weapon serving the new apartheid."

The French report, authored by Socialist Party MP Jean Glavany, who in the past served as cabinet secretary for President Francois Mitterrand, is a powerful blood libel against the Jews, because it establishes the false comparison between Palestinians and South Africa's blacks, who were obliged to use separate and neglected water fountains.

Located on the fringe of a desert, Israel, which is now a "water technology superpower," is wholly dependent on the Mountain Aquifer extending from the slopes of Mt. Carmel to Beersheba and from the crests of mountain ridges in Judea and Samaria to the coastal plain. This is the principle reservoir of drinking water not for "the settlers," but for Tel Aviv, Haifa, Jerusalem and Beersheba.

Israel's claims on the Mountain Aquifer are based on historical use. The aquifer's water, which emanates from rainfall over areas in the territories, was utilized by Jewish pioneers who settled during the Turkish rule and then under the British Mandate.

When <u>Jordan</u> occupied all the territories between 1948 and 1967, some 80% of the Arab population in Judea and Samaria was not connected to a water network. Israel then supplied almost all Arab communities in Judea and Samaria with water pipes, bringing the number of homes with indoor plumbing to 90%. The total water supply doubled from 64 million cubic meters a year to 120 million as a result of improved water access.

More dangerous than rockets

Even though the water quota was mutually agreed upon in the Oslo Accords, the Palestinians are now claiming that they own "all the water that falls on the hills." Israel's argument that the water settles primarily on its side of the Green Line has not affected the Arabs, nor are they concerned that Israel is totally dependent on this water.

Supported by European countries, Arabs see this as "a theft" of Arab water, going so far as to demand compensation for water pumped since 1948.

The land God promised the Jews may have been flowing with milk and honey, but it has no water. That's why Palestinian control of water sources would be more dangerous than Katyusha rockets fired over the northern border, as even coastal plain residents would be at the mercy of the Arab autocracy of the highlands.

This is no doomsday scenario. It is an eminently feasible eventuality, one which could easily materialize. Past Arab attempts to deprive Israel of water were the cause of clashes on the Israeli-Syrian border. Although advocates of withdrawal have long been trying to diminish the importance of this concern, Israel's most important aquifer knows no Green Line.



Could Israel survive such loss? Clearly not. Either Israel has sole control and shares water with the Arabs, or Israel's very survival is at risk.

The French slander also carries a more mystic appeal. During the Black Death in Europe, Jews were accused of poisoning water and promoting disease among Christians. The false charge was adopted by the Islamic world in 1840, with a series of brutal pogroms in Syria. At that time the French consulate in Damascus played a pivotal role in the blood libel. Now, Paris is spreading the "Israel's water apartheid" myth. What's the objective? Drying up the Jews, again.

"Israel's water apartheid?", 21/01/2012, online at: http://www.ynetnews.com/articles/0,7340,L-4178532,00.html



Growing the world's most expensive lemons

In a region where most land is desert and droughts are commonplace, growing a tree is not a guilt-free pleasure.

The joy we felt in watching our lemon tree being manoeuvred off the back of a flatbed truck by two burly delivery men was surely very similar to the joy you would feel in growing it from seed.

It just took half an hour, rather than half a lifetime.

There is an economic issue admittedly. So far I have harvested only four of my lemons and I think they have cost about £100 (\$155) each, but I am obviously hoping that the average price will fall over time.

For all the fragile grace with which it dances in the chilly winter winds, the tree conceals an astonishing number of thorns beneath its gentle leaves - although at the moment it is pricking my conscience more than my fingers.

The problem is, that like most balcony gardeners in Israel, we have installed a miniature irrigation system to keep the lemon tree alive in the brutal heat of summer.

It does not amount to much more than a couple of metres of brown plastic piping and a timer attached to a tap. But every time I hear the muted sloshing of another carefully calibrated dose, the desert around us feels a little drier.

Lack of fairness

Often the water issue here is reported as part of the broader tension between the Israelis and the Palestinians.

A French parliamentary report, for example, recently concluded that the 450,000 Israeli settlers who live on the West Bank of the River Jordan, in defiance of international opinion, use more water than the 2.3 million Palestinians whose home it is

The fairness - or lack of fairness - with which resources are shared is important, of course.

But there is a larger issue which may in the end be more important still. That is the alarming way in which the amount of water in the lakes and rivers which support life for everyone here is dwindling.

The River Jordan carries water south from the Sea of Galilee to the Dead Sea, passing as it does through Palestinian, Jordanian and Israeli land.

These days the Jordan in many places is hardly more than a listless and polluted dribble, but there is plenty of evidence that it was once very different.

Frequent rapids

Half way along the valley for example there is a hydro-electric power plant, long since abandoned.



It is a sobering thought that once the river waters turned its mighty turbines, when these days they are hardly potent enough to moisten a handkerchief.

And we have the writings of the 19th Century American naval officer William Lynch, who in the 1840s rather surprisingly persuaded the government of the United States to fund an expedition down the Jordan Valley.

He spoke of rapids, frequent and most fearful, and of waves like the hammers of the Titans.

Even allowing for the need to persuade his fellow Americans that they were getting full value for their tax dollars, it's clear that there was a lot more to the Jordan back then.

That is partly because these days Israel pumps water out of the Sea of Galilee to feed its national supply system and partly because neighbouring Arab countries use water from the rivers that feed the Galilee.

The effect on the River Jordan is measured best by watching what is happening to the level of the Dead Sea, into which it flows.

It is shrinking by a metre a year. It is only about two-thirds of the size it was in the 1930s.

The ancients once believed it was certain death to try to sail across the Dead Sea - give it another 100 years or so and you'll be able to step over it.

Televised golf

So something has to be done - and attitudes to water in the Middle East are not always rational.

There is the whole debate about how much sense it makes to grow non-native plants like bananas and oranges for a start. And I wince when the lawn-sprinkler system at my apartment complex switches itself on.

Then there are the televised golf tournaments from elsewhere in the desert played on lushest of grass - it is bunkers and sand traps, not putting greens, which are native to the Middle East. And God knows how much that defiance of natural circumstance must cost.

And of course, in its modest way our lemon tree is not helping. Every time I hear the gurgle of the irrigation pipe I imagine the Dead Sea shrinking a little further.

By the time we come to leave Israel, I am told the tree will be too big to fit in our building's lift so a crane will have to be hired to winch it over the edge of the balcony - thus probably raising the average price of the lemons again by quite a bit.

Instead of selling it, I am tempted to take it down to the shores of the Dead Sea and replant it there.

Deprived of its artificial life support system it might not thrive - but it'll do it good to learn to fend for itself.

"Growing the world's most expensive lemons", Kevin Connolly, 21/01/2012, online at: http://www.bbc.co.uk/news/magazine-16654390



❖ 57% of Disi Project has been completed, minister

Amman, Jan. 17 (Petra) - Minister of Water and Irrigation Mousa Jamani said that 57 percent of the Disi Water Conveyance Project has been completed, adding the project will be ready by 2013.

Jamani said in a roundtable interview with Jordan News Agency, Petra that was moderated by Acting Director General Mohammad Omari, that the project will supply the capital Amman with 60 percent of water, while other governorates will receive 40 percent of the project's total amount of water estimated at 100 million cubic meters per year.

Jamani stressed that Disi project is governed by laws and regulations so as to maintain its groundwater, indicating that 99 percent of its designs were completed and the work is going on according to schedule.

"Water situation in Jordan is acceptable, despite its scarcity which prompts the ministry and its staff to work on projects to address salt and fresh water problems to meet consumers needs.

The minister said that water security is no less important than national security and that public interest must be given top priority over the private interest, in reference to the need to protect water resources from attacks and abuses by some of the citizens.

This he said, result in the loss and waste of more than 60 million cubic meters annually, constituting 60 percent of the amount of water expected from the Disi project.

"57% of Disi Project has been completed, minister", 17/01/2012, online at: http://www.jordandirections.com/2012011750653/local/57-of-disi-project-has-been-completed-minister



❖ Government slams French water 'apartheid' report

French MK blames Israel for turning water into a "weapon"; Foreign Ministry calls report inaccurate propaganda.

The Foreign Ministry slammed a French legislator's report on the country's "apartheid" water policies as "venomous," inaccurate and strewn with anti-Israel propaganda.

The report, a case study on "The Jordan Basin: Water as an Integrated Hinge of the Territorial Conflict and Security Question," was a 20-page section in a more-than-300-page publication on "The Geopolitics of Water," published by the French National Assembly on December 13. Commissioned by the Foreign Affairs Committee in October 2010, the report was the work of French MP Jean Glavany (Socialist Party) and a team of other legislators.

Its Jordan Basin section highlights the region's ongoing water crisis and blames much of the Palestinians' water trouble on Israeli policies.

At the end of the section, however, an inset gray box titled "Water, revealer of a new apartheid in the Middle East" amplifies the previous paragraphs' criticisms, describing how the region has become "the theater of a new apartheid." Calling the separation in general between Palestinians and Jews in the West Bank "racial segregation," the sidebar essay dubs the situation "arrogant and contemptuous."

While Israel transferred governance over West Bank Areas A and B to the Palestinian Authority, these two regions – which contain roughly 95 percent of the West Bank's Palestinian population – make up only 40% of the territory's land, the essay argues. Area C, on the other hand, contains most of the West Bank's open space and access to water resources, as well as all of the area's major roads. The division, therefore, is simply an "illusion," it says.

Water has become an integral element of the Israeli-Palestinian conflict, to the extent that it prompted the creation of the Joint Water Committee to oversee distribution of joint water resources in the 1995 Oslo II interim agreement – a committee over which Israel has complete veto power, the essay argues. As Areas A and B are not contiguous and are "fragmented into enclaves surrounded by roads reserved for settlers," development of Palestinian infrastructure is nearly impossible, according to the author.

"Water has become in the Middle East more than a resource – it is a weapon," the report says.

The essay goes on to slam Israel for the priority it gives to Jewish West Bank settlers over Palestinians during times of drought, as well as the "separation wall," which it says provides Israel with control over groundwater access. Charging that "wells spontaneously drilled by Palestinians in the West Bank are systematically destroyed by the Israeli army," the report also blasts the IDF for 2008-2009 "bombardments" of Gazan reservoirs.

In response, the Foreign Ministry charged the author with employing "hateful propaganda" in an unprofessional manner that prevents any rational debate and instead harbors "the most extreme of anti-Israeli discourse," along with a "sweeping denial of all possibilities for dialogue."

"The systematic evading of simple facts that are available for verification within the field indicate the blatant bias of the author," a ministry spokesman said.

Not only does Israel does not take away water from the PA, it actually supplies the neighboring government



with much more than it is required to under the Oslo Accords, the ministry continued. Meanwhile, the spokesman explained, Palestinians are actually abandoning their own commitments by perpetuating pirated well-drilling all over the region.

"Instead of contributing to the understanding and cooperation between Israel and the Palestinians, the report fuels the tensions by piling up false data and distorted statements, and this destructive approach must be dismissed from the beginning," the ministry said.

When Israeli diplomats brought the report to the attention of the legislators who helped Glavany draft the report, the latter were actually "astonished" to see the harsh wording of the final version, according to the ministry. The co-authors, as well as the chairman of the Foreign Affairs Committee and the chairman of the France-Israel Friendship group, repudiated Glavany's claims and issued public statements to this effect, accusing Glavany of using a "venomous and disparaging tongue against Israel," the spokesman said.

Green group Friends of the Earth Middle East expressed mixed feelings about the French report, with its Israel director, Gidon Bromberg, noting that it stressed the need for a solution to the water crisis that was acceptable to both parties.

"Instead of igniting the region on an issue where it is clear that an agreement can be reached, the governments need to urgently advance a solution that would serve the interests of both sides – meeting the water supply needs for Palestinians, as well as management of sewage and wastewater that affects the Israeli side," Bromberg said.

The group's Palestinian director, Nader al-Khateeb, stressed that the current Joint Water Committee system was failing, and that an agreement ensuring a fairer share of trans-boundary groundwater was essential.

However, Prof. Haim Gvirtzman of The Hebrew University's Earth Science Institute told *The Jerusalem Post* that without a doubt, labeling Israel's policies as "apartheid" was an idea "not connected to reality."

On Tuesday, the Begin-Sadat Center for Strategic Studies at Bar Ilan University released a new study by Gvirtzman, "Myths and Facts in Israeli- Palestinian Water Conflict," in which he refutes claims that Israel is denying West Bank Palestinians their water rights.

"It is just the opposite of apartheid," he told the *Post*, stressing that since Israel gained control over the area from Jordan, it had connected more than 700 villages to running water.

"Government slams French water 'apartheid' report", 17/01/2012, online at: http://www.ipost.com/MiddleEast/Article.aspx?id=254047



❖ Masterpak Geomembrane Lining to Preserve Water in Large Lebanese Irrigation Lake

Masterpak's highly-trained professional team installed geomembrane lining at large irrigation lake in Oattara, Jbeil, Lebanon.

Masterpak's highly-trained professional team installed geomembrane lining at irrigation lake in Qattara, Jbeil, Lebanon. The polyethylene (PE) film manufacturer's team successfully completed the large project in less than one week, working under unfavorable weather conditions.

The artificial lake, belonging to Saint Artemius (a.k.a. Mar Challita) monastery, has a large capacity to hold water. Geomembrane lining, impermeable high puncture resistant sheets of polymeric material, will preserve and conserve rain water in the lake. Agricultural lands surrounding the water reservoir will benefit from access to irrigation water throughout the year even during dry seasons. About Qattara Irrigation Lake Geomembrane Installation Project

Extending 63m wide and approximately 85m long, Qattara irrigation lake in Jbeil district of Mount Lebanon has a maximum depth of 9m. Masterpak installation project covered:

- Approximately 6,000m2 of surface preparation work
- More than 12,000m2 of geosynthetic materials
- 250gr/m2 geotextile used
- 1.5mm AGRU High-Density Polyethylene (HDPE) geomembrane used

In addition to water reservoir lining, geomembranes have many other applications, such as solid waste containment, dam or tunnel lining, stadium or basement water proofing, etc.

Geomembranes are used for hydraulic engineering (dams, irrigation pond, canals and firefighting basins), landfill engineering (landfill sealing: base, slope and capping), environmental applications (retention basins & secondary containment), and civil engineering (waterproof construction).

Furthermore, Masterpak also manufactures various other PE films for the building and construction sector, such as concrete curing film, multi-purpose protection film, under slab vapor barrier, aboveground barricade warning, and underground warning tapes and signs.

"Masterpak Geomembrane Lining to Preserve Water in Large Lebanese Irrigation Lake", 18/01/2012, http://www.openpr.com/news/207518/Masterpak-Geomembrane-Lining-to-Preserve-Water-in-Large-Lebanese-Irrigation-Lake.html

BACK TO TOP



❖ Abu Dhabi to host water summit from next year

ABU DHABI - In a move to promote water security in arid regions, General Shaikh Mohammed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, on Wednesday, announced the International Water Summit (IWS) to begin next year alongside the World Future Energy Summit in January 2013.

Dr Rashid Ahmed bin Fahd, Minister of Environment and Water; Dr Sultan Ahmed Al Jaber, CEO of Masdar; and Dr Glen Daigger, President of the International Water Association (IWA); were also present at a Press conference at the ongoing World Future Energy Summit (WFES) to announce the details of the summit.

The International Water Association (IWA) is a global network of water professionals, working everyday to provide water and sanitation services which create healthy living conditions, fuel the economy, protect the environment and enhance the living conditions.

During the Press briefing, the minister said as a result of the increased pressure on this valuable resource due to various factors including growing population, agricultural demands and economic growth and the unsustainable consumption patterns, various countries around the world are currently facing real problems with water resources.

Dr Fahad emphasised that the climate change has increased the pressure on the resources as well. Therefore, this launch — as a result of our visionary leadership's drive towards achieving water security — helmed by the President, His Highness Shaikh Khalifa bin Zayed Al Nahyan, will shed a real light on the subject.

Dr Sultan Ahmed Al Jaber said that the launch of the International Water Summit reflects the important role the UAE is playing in supporting the international efforts in answering the pressing challenges facing the world today.

Quoting General Shaikh Mohammed, Dr Al Jaber said that water is more important than oil in the UAE. This is a bold and clear signal that an economy based on oil is placing water at the topmost of its agenda. He also made a clear call to action that we need to enhance and increase the studies and research, create strategic action plans, and find solutions to preserving this invaluable resource for future generations.

Dr Al Jaber said that His Highness had launched the International Water Summit based on a well-calculated long-term strategy. He emphasised the interconnection between energy and water, highlighting that more than 70 per cent of overall water production and processing cost results from the energy required to desalinate, transport, store, forward and distribute water in countries that are depleted of fresh water, such as the Arab region.

Dr Al Jaber said that the Middle East and North Africa is the most water-scarce region of the world, it is home to 6.3 per cent of the world's population and the region contains only 1.4 per cent of the world's renewable fresh water.

Moreover, around 700 million people in 43 countries suffer today from water scarcity and as population pressures in the region increase, the demand for water resources rises, Dr Al Jaber added.



In his remarks, Dr Glen Daigger, President of the IWA said: "I would like to congratulate Shaikh Mohammed bin Zayed for taking such a leading step in one of the world's most pressing issues, coping with aridity. Through Masdar, WFES and other initiatives in Abu Dhabi we have grown accustomed to seeing this young nation take leading steps to address world challenges."

"Abu Dhabi to host water summit from next year", 19/01/2012, online at: <a href="http://www.khaleejtimes.com/displayarticle.asp?xfile=data/theuae/2012/January/theuae_January492.xml§ion=theuae&col="http://www.khaleejtimes.com/displayarticle.asp?xfile=data/theuae/2012/January/theuae_January492.xml§ion=theuae&col=



Arid capital to get water

NANJING - A large part of Beijing's water will be supplied by the middle route of the South-to-North Water Diversion (SNWD) project when it is completed in 2014 as part of the major efforts to re lieve the thirsty capital, officials said.

The project will transfer at least 1 billion cubic meters of water to Beijing a year, accounting forone-fourth of the city's annual water supply, said Sun Guosheng, director of the Beijing branchof the SN WD project office, under the State Council.

At present, Beijing needs about 3.6 billion cubic meters of water a year. That will increase to 4to 5 billion cubic meters by 2020 as economic growth continues to surge, Sun told China Dailyon Wednesd ay during a three-day work conference in Nanjing, Jiangsu province.

Partly because of consecutive years of drought, the volume of Miyun reservoir, the city's majorsource of surface water, has stayed at 1.1 billion cubic meters, according to the Beijing WaterAuthority.

The average depth of groundwater in Beijing is at 25 meters now, significantly lower than 12meters i n 1999, due to years of overuse, according to the water authority.

"Without the extra water brought from outside, the city has certainly suffered from severe watershort ages in recent years," he said.

Since 2008, the Beijing-

Shijiazhuang section of the middle route of the SNWD project, linkingreservoirs in Hebei with Beijin g, began supplying water as an emergency measure to help easethe shortage in the capital.

By the end of 2011, up to 1.1 billion cubic meters of water had been transferred to the city, according to the SNWD project office.

"The quality of the diverted water is Grade 2, which is drinkable after treatment. All of that waterhas been supplied to residences," Sun said.

The SNWD project will divert water from the Yangtze River in the south via an eastern, middleand w estern route to satisfy the water demand in the arid northern regions of China.

The eastern route will transfer water from East China's Jiangsu province along the YangtzeRiver to Tianjin, near Beijing, starting in 2013.

The middle route will supply water from the Danjiangkou Reservoir in Central China's Hubeiprovinc e into large cities including Beijing, Tianjin, Shijiazhuang and Zhengzhou, in 2014.

www.ORSAM.org.TR



By the end of 2011,

330,000 people in Henan and Hubei province had to be relocated to makeway for the central route, ac cording to the SNWD project office.

"The remaining 15,000 people will be resettled in the first half of this year, which will complete the re locations," E Jingping, head of the SNWD project office, said at the conference.

More than 64 billion yuan (\$10.13 billion) will be invested in the water diversion project this years i t goes into high gear, he said.

China invested 57.8 billion yuan in the project in 2011, bringing the total investment to 137.6billion y uan so far, official figures showed.

Experts with E's office said the western route, meant to replenish the Yellow River with waterdiverte d from the upper reaches of the Yangtze River, now is still at the blueprint stage.

"Arid capital to get water", 14/01/2012, online at: http://www.chinadaily.com.cn/cndy/2012-01/14/content 14444715.htm



❖ Growing concerns over fresh water in the UAE

CAIRO: The United Arab Emirates' Environment and Water Minster, Dr. Rashid Ahmed bin Fahd, said that climate change and the increasing stresses on water resources poses a concern on many levels.

The minister's comment came during the inauguration of the 13th Water and Energy Technology and Environment Exhibition in 2011. He said that pressure on water resources in the UAE has created an imbalance in supply and demand despite state measures to mitigate the conservation and drainage problems in the UAE.

The minister said that water resource issues are exacerbated by population growth, agricultural and economic expansion, and unsustainable norms on consumption. He said that beyond these factors, climate change has further heightened the problem.

In a landmark move, Sheikh Mohammed bin Zayed, the Crown Prince of Abu Dhabi and Deputy Supreme Commander of the Armed Forces, announced on Thursday that an inaugural International Water Summit (IWS) will take place in the capital next year.

"I would like to congratulate Shaikh Mohammed bin Zayed for taking such a leading step in one of the world's most pressing issues, coping with aridity. Through Masdar, WFES and other initiatives in Abu Dhabi we have grown accustomed to seeing this young nation take leading steps to address world challenges," said Dr Glen Daigger, president of the IWS.

Fahd referred to a statement from the Sheikh at the conference, stating that water is more important than oil in the UAE, where drinking water is mainly produced from expensive desalination technology.

The Middle East and North Africa is the most water scarce region of the world, accounting for 6.3 percent of the world's population, but only 1.4 percent of its fresh water supply. The UAE receives less than 4 inches of rainfall annually.

"Growing concerns over fresh water in the UAE", 21/01/2012, online at: http://bikyamasr.com/54452/growing-concerns-over-fresh-water-in-the-uae/



Egypt looks to make up for lost ground with Nile Basin countries

Foreign Minister Mohamed Kamel Amr is currently on a six-country tour of the Nile Basin countries as Egypt increases its attempts to engage its neighbors to the south lobbying for a greater share of Nile water.

Amr's visit is being advertised as promoting Egyptian investment in the Nile Basin countries, but Egyptian foreign policy experts say that the trip is really aimed at improving relations with the six countries that signed the Entebbe agreement in the Ugandan city back in 2010. The treaty calls for a more equitable distribution of Nile water rights among the eleven riparian countries, though at the time of signing it was ten, before the advent of South Sudan.

The treaty was initially signed by Ethiopia, Kenya, Rwanda, Uganda and Tanzania. Burundi signed a year later. The Democratic Republic of the Congo has promised to sign, but has yet to do so. Egypt refused to sign the treaty and declared it non-binding because it lacked Egypt's consent.

According to a 1959 treaty, the current distribution of Nile water gives Egypt the lion's share (51 billion square meters per year) and the second most to Sudan (18 billion square meters per year).

The other Nile Basin countries have long called for a new treaty to delineate a more equitable distribution of water, but those entreaties were long ignored by the Foreign Ministry of former President Hosni Mubarak. The other countries eventually signed the Entebbe treaty, which was critical of Egyptian policy toward its Nile neighbors.

Now is the time to change the treaty, political analysts say.

"We must begin to realize that the other Nile Basin countries deserve to benefit more from the Nile river water, especially as they suffer economic problems and underdevelopment; and this will make a difference for them," says Mostafa Kamel al-Sayed, a political science professor at Cairo University.

Egypt is now focusing on energizing another treaty, the Nile Basin Initiative (NBI) launched in 1999, which aims to increase cooperation between the countries along the river. This initiative was created to stem riparian countries' claims to a larger share of water through economic cooperation. It was after this initiative seemed to stagnate that the prospect of the Entebbe treaty rose.

Egypt recently established the Egyptian Mission for Economic Development, which will look to increase Egyptian investments in African countries, including the Nile Basin states, within the framework of the NBI. The recent formation of the mission is the likely reason for the foreign minister's current visit.

"Egypt must continue to move in this direction," says Hani Raslan, an expert in African issues at Al-Ahram Center for Political and Strategic Studies. "Egyptian strategy must depend on resolving these issues through cooperation and not through disputes."



"There is no way to utilize the resources of the Nile except through cooperation, so keeping bilateral channels open with the Basin countries is imperative," he adds.

Amr is visiting Kenya, Tanzania, Rwanda, the Democratic Republic of the Congo, Sudan and South Sudan on his trip. While in Kenya, Amr said the economic development mission will look to finance projects in energy, agriculture and irrigation.

Kenya welcomes these latest efforts and is willing to work with Egypt for the stability and security of the Nile Basin countries, Chinese state-run Xinhua news agency reported Kenyan Vice President Kalonzo Musyoka as saying.

The Mubarak regime had a belligerent attitude toward the Entebbe treaty and Nile Basin states regarding water distribution. At the time, local commentators recommended a more conciliatory approach, but it was never adopted.

After Mubarak resigned, Egypt began making friendlier overtures to the Basin countries, such as sending a 35-strong delegation to Entebbe last April in an attempt to reinvigorate relations. The delegation included opposition figures and members of revolutionary youth groups.

This was an attempt at a fresh approach. Ethiopian Prime Minister Meles Zenawi had described the Mubarak approach as "old-fashioned" Egyptian politicians attempting to obstruct foreign financing for irrigation dam projects in Ethiopia, fearing they would affect Egypt's share. He expressed these sentiments early last year at the public announcement ceremony for the Grand Ethiopian Renaissance Dam project, which is being constructed 40km from the South Sudanese border.

"We need to stop viewing the other countries' claims as a conspiracy being manipulated by external powers, and there should be an aim to invest in the Nile Basin countries," Sayed says.

The Egyptian press has run amok with stories about Israel investing heavily in dam infrastructure in Ethiopia and other riparian states in order to threaten Egypt's water security. The narrative often constructed is that the Nile Basin countries are being manipulated by external powers to curb Egypt's control of the Nile.

"In the past, we used to dismiss their legitimate demands to utilize the Nile water," Sayed adds. "We can't do this anymore and we should look at mutual cooperation. However, we need to propose specific plans to the Nile Basin countries, and not just talk in generalities about mutual cooperation."

However, not all of the 33 dams already built or are being constructed along the banks of the Nile need be detrimental to other countries, according to hydrologist Haytham Awad.

"The dams being built are not necessarily harmful to Egypt," he says, adding that the Karadoba dam in Ethiopia would increase Egypt's annual water share by 1.6 million cubic meters, though also mentioning that the Mendi dam in the same country would detract from Egypt's share.

According to Raslan, Egypt is playing this balancing act because it cannot afford to lose too much of its annual share.



"Egypt suffers from poor water resources even with the Nile, so the only viable strategy is to create mutually beneficial projects through the Nile Basin Initiative that will benefit all the countries."

He adds that other riparian countries, such as Ethiopia, have plentiful rainfall which is used for irrigation purposes, making them not as dependent on Nile water as Egypt, whose agriculture depends almost entirely on Nile water.

The Entebbe treaty has been complicated by the creation of South Sudan last summer. Sudan itself was and remains closely aligned to the Egyptian position, due to the strong ties between Cairo and Khartoum, as well as the fact that under the 1959 treaty Sudan receives the second highest water share.

Whether South Sudan will maintain a contrarian position remains to be seen, but Raslan believes the state to its south will hedge its bets for the time being. "South Sudan can accept the 1959 treaty but I doubt that, or it can refuse that and sign the Entebbe agreement which is possible," he says, "However most probably it will just adopt a wait-and-see position for now, as the Nile water issue is not a priority at this stage."

He also believes Egypt needs to be more heavily involved in South Sudan beyond a cordial relationship.

"South Sudan also has much rainfall and it has more pressing issues," Raslan adds. "Egypt has some projects there such building a hospital and a university and electricity projects in villages, but South Sudan needs heavy investment in infrastructure and Egypt could do more to invest there."

"Egypt looks to make up for lost ground with Nile Basin countries", 13/01/2012, online at: http://www.almasryalyoum.com/en/node/599196



❖ Kenya, Egypt to work together on water conservation

CAIRO: Egyptian and Kenyan officials have reached an agreement to cooperate on a project to conserve the precious waters of the Nile River, shared by the two states.

The decision came after a meeting between an Egyptian delegation headed by Egyptian Minister of Foreign Affairs Mohammed Kamel Amr and Kenyan Prime Minister Ralla Odinga.

The Egyptian delegation committed to a project to support Nile water conservation and to develop infrastructure for irrigation and drinking water in Kenya.

The Egyptian government has budgeted for the projects under the Egyptian Initiative for Development in Africa. The Initiative prioritizes agriculture, energy, health and trade projects in Nile basin countries.

"The government of Kenya should urgently identify projects that should be funded under this cooperation," Amr said.

Odinga said that there is room for Egypt and Kenya to foster further cooperation, particularly in trading Kenyan tea and livestock. He also called upon Egypt to support Kenya's military activity against Al-Shabaab in Somalia.

"Kenya's incursion into Somalia was to stop frequent attacks on tourists and other atrocities committed by the terror organization on innocent people," said the PM.

The Egyptian minister expressed his desire to see the conflict between Kenya and Al-Shabaab come to a peaceful end, and he agreed to attend an international conference in Kenya next March on piracy.

"Kenya, Egypt to work together on water conservation", 16/01/2012, online at: http://bikyamasr.com/53830/kenya-egypt-to-work-together-on-water-conservation/



Ethiopia: Forced Relocations Bring Hunger, Hardship

(London) – The Ethiopian government under its "villagization" program is forcibly relocating approximately 70,000 indigenous people from the western Gambella region to new villages that lack adequate food, farmland, healthcare, and educational facilities, Human Rights Watch said in a report released today. State security forces have repeatedly threatened, assaulted, and arbitrarily arrested villagers who resist the transfers.

The report, "Waiting Here for Death': Forced Displacement and 'Villagization' in Ethiopia's Gambella Region," examines the first year of Gambella's villagization program. It details the involuntary nature of the transfers, the loss of livelihoods, the deteriorating food situation, and ongoing abuses by the armed forces against the affected people. Many of the areas from which people are being moved are slated for leasing by the government for commercial agricultural development.

"The Ethiopian government's villagization program is not improving access to services for Gambella's indigenous people, but is instead undermining their livelihoods and food security," said <u>Jan Egeland</u>, Europe director at Human Rights Watch. "The government should suspend the program until it can ensure that the necessary infrastructure is in place and that people have been properly consulted and compensated for the loss of their land"

The government says the "villagization" program is designed to provide "access to basic socioeconomic infrastructures" to the people it relocates and to bring "socioeconomic & cultural transformation of the people." But despite pledges to provide suitable compensation, the government has provided insufficient resources to sustain people in the new villages, Human Rights Watch said.

The residents of Gambella, mainly indigenous Anuak and Nuer, have never had formal title to the land they have lived on and used. The government often claims that the areas are "uninhabited" or "under-utilized." That claim enables the government to bypass constitutional provisions and laws that would protect these populations from being relocated.

The report is based on more than 100 interviews in Ethiopia in May and June 2011, and at the Ifo refugee camp in Dadaab and Nairobi, Kenya, where many Gambellans have fled.

"My father was beaten for refusing to go along [to the new village] with some other elders," a former villager told Human Rights Watch. "He said, 'I was born here – my children were born here – I am too old to move so I will stay.' He was beaten by the army with sticks and the butt of a gun. He had to be taken to hospital. He died because of the beating – he just became weaker and weaker."

The Villagization Program

The Ethiopian government is planning to resettle 1.5 million people by 2013 in four regions: Gambella, Afar, Somali, and Benishangul-Gumuz. Relocations started in 2010 in Gambella, and approximately 70,000 people there were scheduled to be moved by the end of 2011. Under the Gambella Peoples' National Regional State Government Plan, 45,000 households are to be moved during the three-year program. The plan pledges to provide infrastructure for the new villages and assistance to ensure alternative livelihoods. The plan also states



that the movements are to be voluntary.

Instead of improved access to government services, however, new villages often go without them altogether. The first round of forced relocations occurred at the worst possible time of year – the beginning of the harvest – and many of the areas to which people were moved are dry with poor-quality soil. The nearby land needs to be cleared, and agricultural assistance – seeds and fertilizers – has not been provided. The government failure to provide food assistance for relocated people has caused endemic hunger and cases of starvation.

Human Rights Watch's research showed that the forced relocation policy is disrupting a delicate balance of survival for many in the region. Livelihoods and food security in Gambella are precarious. Pastoralists are being forced to abandon their cattle-based livelihoods in favor of settled cultivation. Shifting cultivators — farmers who move from one location to another over the years — are being required to grow crops in a single location, which risks depleting their soil of vital nutrients. In the absence of meaningful infrastructural support and regular supplies of food aid, the changes for both populations may have life-threatening consequences, Human Rights Watch said.

The resident of one new village told Human Rights Watch: "We expect major starvation next year because they did not clear in time. If they [the government] cleared [the land] we would have food next year but now we have no means for food."

Commercial Land Investment

The villagization program is taking place in areas where significant land investment is planned or occurring. The Ethiopian government has consistently denied that the resettlement of people in Gambella is connected to the leasing of large areas of land for commercial agriculture, but villagers have been told by government officials that this is an underlying reason for their displacement. Former local government officials confirmed these allegations to Human Rights Watch.

One farmer told Human Rights Watch that during the government's initial meeting with his village, government officials told them: "We will invite investors who will grow cash crops. You do not use the land well. It is lying idle."

"We want you to be clear that the government brought us here... to die... right here," one elder told Human Rights Watch. "We want the world to hear that government brought the Anuak people here to die. They brought us no food, they gave away our land to the foreigners so we can't even move back. On all sides the land is given away, so we will die here in one place."

Mass displacement to make way for commercial agriculture in the absence of a proper legal process contravenes Ethiopia's constitution and violates the rights of indigenous peoples under international law.

From 2008 through January 2011, Ethiopia leased out at least 3.6 million hectares of land, an area the size of the Netherlands. An additional 2.1 million hectares of land is available through the federal government's land bank for agricultural investment. In Gambella, 42 percent of the total land area is either being marketed for lease to investors or has already been awarded to investors, according to government figures. Many of the



areas that have been moved for villagization are within areas slated for commercial agricultural investment.

"The villagization program is being undertaken in the exact same areas of Ethiopia that the government is leasing to foreign investors for large-scale commercial agricultural operations," Egeland said. "This raises suspicions about the underlying motives of the villagization program."

Role of Foreign Donors

Foreign donors to Ethiopia, including the United Kingdom, United States, World Bank, and European Union, assert that they have no direct involvement in the villagization programs. However, the multi-donor Protection of Basic Services (PBS) program subsidizes basic services – health, education, agriculture, roads, and water – and local government salaries in all districts in the country, including areas where new villages are being constructed and where the main activity of local governments is moving people.

As a result of their potential responsibilities and liabilities, donors have undertaken assessments of the villagization program in Gambella and in Benishangul-Gumuz and determined that the relocations were voluntary. Human Rights Watch's field-based research and interviews with residents, however, indicates that the moves have been coerced.

International donors should ensure that they are not providing support for forced displacement or facilitating rights violations in the name of development, Human Rights Watch said. They should press Ethiopia to live up to its responsibilities under Ethiopian and international law, namely to provide communities with genuine consultation on the villagization process, ensure that the relocation of indigenous people is voluntary, compensate them appropriately, prevent human rights violations during and after any relocation, and prosecute those implicated in abuses. Donors should also seek to ensure that the government meets its obligations to respect, protect, and fulfill the economic and social rights of the people in new villages.

"It seems that the donor money is being used, at least indirectly, to fund the villagization program," Egeland said. "Donors have a responsibility to ensure that their assistance does not facilitate forced displacement and associated violations."

"Ethiopia: Forced Relocations Bring Hunger, Hardship", 16/01/2012, online at: http://www.hrw.org/news/2012/01/16/ethiopia-forced-relocations-bring-hunger-hardship



❖ Nizami for Jihad against India's water terrorism

LAHORE – "Jihad is not fasad. Rather it is a battle for establishing peace. Jihad should be waged against India for her nasty acts of water terrorism and killing of Kashmiri freedom fighters. Rulers should break their silence against ruthless Delhi. India, Israel and America want to break Pakistan," said TheNation Editor-in-Chief Majid Nizami on Thursday.

Presiding over a sitting on the occasion of the 138th birth anniversary of the late Maulana Zafar Ali Khan, a renowned journalist, Majid Nizami said Pakistan's water woes "can be traced across the border to Indian held Kashmir as New Delhi, through construction of dams and diversion projects along the Indus River, is trying to make Pakistan a barren land."

Majid Nizami said: "The prime job of a journalist is to unearth truth and I have been saying the right word for fifty years. The profession and business of journalism, Majid Nizami said, was a tough job. "Despite severe cardiac surgery thrice, I pay full heed to the media outlets including Nawa-i-waqt, TheNation, Waqt News, Nida-e-Millat and Phool Magazine adding my mission will continue until my last breath". Majid Nizami said the politicians divided the country into two parts, whereas the judiciary was the only hope which could survive the country.

Recollecting his affiliation to the Pakistan Movement, Majid Nizami said, "I participated in the Pakistan Movement and strived hard for the establishment of Pakistan, hence I am certified Mujahid."

"Nothing could stop me promulgating the cause of Jihad that was the only way to win fight for right," Majid Nizami added. India happened to be a water terrorist and the only treatment of the Hindu, Nizami, recommended, was up gradation of the missile technology. He said Pakistan came into being in the name of Kalma but the miserable circumstances of Pakistan today paint a different picture altogether. He said only courts could save Pakistan. Majid Nazami, on the occasion, gifted a copy of his research thesis "Press in Pakistan," a critical analysis of the leading newspapers of Pakistan, which he wrote when he was student of Political Science at PU, to ICS library.

Punjab University Institutes of Communication Studies and Maulana Zafar Ali Khan Trust jointly organised the program. Majid Nizami paid rich tribute to the contribution of late Moulana Zafar Ali Khan for journalism and Pakistan. PU Vice-chancellor Prof Dr Mujahid Kamran, ICS Acting Director Dr Afirah Hamid, Maulana Zafar Ali Khan Trust Chairman Khalid Mahmood, Raja Asad Ali Khan, Dr Zahid Munir Amir and Mowahid Hussain Shah were the speakers.

In his address, Dr Mujahid Kamran said war was indispensable in the world. He said only those nations that prepared themselves for confrontation could succeed. He said that knowledge and power were must for decent survival in the world and knowledge was the only way to gain power. But, he said, the nation could not be knowledgeable till it has good a pragmatic approach.

He said a sea of knowledge and power was reflected in the writings of Maulana Zafar Ali Khan, which was due to his uplifting truth. He said if students focused, they would know what the powers they had.



The Vice-Chancellor advised the students to read and feel the things in history which were source of power. He said the PU had digitized the record of The Daily "Zamindar" which would soon be made available. Khalid Mahmood said there was an ample expression of love with Prophet Muhammad (PBUH) in the message of Maulana Zafar Ali Khan. One of his most important messages is that "there was no need to fear anybody except Allah."

Maulana raised voice against British imperialism and helped Turks. Mowahid Hussain Shah said Qauid-e-Azam Muhammad Ali Jinnah had pointed out the threat of the minutes of provincialism in his speech 64 years back which is a hot issue these days. He said defeated-mentality was the biggest danger for youth today.

There was need for the youth to know and utilize their capabilities. They should raise their voice at every platform and write letters to the politicians to bring reform in the society. Dr Afirah Hamid Ali said it was unfortunate that the message of Maulana Zafar Ali Khan had not been conveyed to the younger generationand we were responsible for that. Dr Zahid Munir Amir highlighted the journalistic services and achievements of Maulana Zafar Ali Khan and presented performance report of Maulana Zafar Ali Khan Chair.

"Nizami for Jihad against India's water terrorism", 20/01/2012, online at: http://www.nation.com.pk/pakistan-news-newspaper-daily-english-online/lahore/20-Jan-2012/nizami-for-jihad-against-india-s-water-terrorism



Mega dams: campaigning against the plans of the Indian government

In demonstrations barely reported in the media, peasants and students in the Northeastern Indian state of Assam are fighting together against a proposed gargantuan network of dams across the upper reaches of its rivers in Arunachal Pradesh, one of the world's six most seismically active regions. The movement has gathered impressive momentum against a project that threatens devastating environmental, demographic and socio-economic impact.

The anxiety and disquiet among the downstream dwellers created over the construction of mega dams in Northeast India has left Assam's politics in a simmering state.

On the foothills of the Eastern Himalaya, lush green tea gardens fill up the North Bank of the Brahmaputra in Assam's Sonitpur district. Driving further up, through NH 52, towards the northern towns of Lakhimpur and Dhemaji, one sees countless rivulets and tributaries flowing down from the northern state of Arunachal Pradesh. In recent years, in a drastic change of topography, the green landscape has gradually given way to dried up rivers and sandy floodplains - thanks to massive sand deposition in the lower reaches of these swirling rivers. In the summer of 2011, sand deposition due to the changing course of the Gai River alone had buried farmlands amounting to thousands of hectares. Jiadhol and Misamari, smaller rivers once known for causing flash floods in Lakhimpur and Dhemaji districts have now sanded up one village after another. Whereas in June 2008, the released load waters from the dam in Ranganadi, another tributary flowing from Arunachal-Himalaya caused heavy floods and engulfed as many as 3 lakhs people.

Blame it on the new river engineering employed by the Indian central government in the myriad tributaries of Arunachal Pradesh that converge to become the mighty Brahmaputra. The dispossessed, displaced and distressed peasantry of these sleepy villages along the national highway are now all out on the streets day and night, braving the winter cold. For they fear further devastation once the underconstruction dam on Lower Subansiri, the largest tributary of the Brahmaputra, begins operating. And at present they have the crucial backing of a whole range of people - from organizations and parties to middle class elites. In fact the long-enduring anti-dam movement in Assam, mainly geared against the state's Congress government and NHPC Limited has gained an unprecedented momentum in the past few weeks; so much so that it has brought the construction work at the project site in Gerukamukh to a complete halt. People in the state are now fighting together against a proposed gargantuan network of 168 mega dams across Arunachal Pradesh, one of the world's six most seismically active regions. The project is thought to be India's largest ever hydro-power adventure.

he anti-dam convulsion in the Northeast Indian state of Assam, especially the one against the Lower Subansiri project has a decade long history. The project itself was envisaged by the Brahmaputra Flood Control Commission as back as 1955 with a view to flood moderation and irrigation. Finally the Brahmaputra Board transferred the project to NHPC in May, 2000 without any decision regarding the scientific investigations. As the riparian anxiety and the uncertainties about its socio-ecological impact grew by 2002, the All Assam Students' Union (AASU) started campaigning against the mega dams. At the same time a few other NGOs too joined the rally and held protest marches at various points. Finally in December, 2006, a tripartite meet was held involving the Assam Government,



NHPC and AASU, after which a scientific expert committee was set up to investigate the 2000 MW project.

Ironically, NHPC had begun the construction work at a furious pace without carrying out a downstream impact study. Only after AASU launched yet another agitation did the NHPC start cooperating with the expert committee in September 2008. So when the final recommendations of the scientific study came out on 28 June, 2010, they put the public mood in Assam into a panic. The revealing report states, "The selected site for the mega dam of the present dimension was not appropriate in such a geologically and seismologically sensitive region. Therefore it is recommended not to construct the mega dam in the present site." On 17 July, 2010 the House Committee of Assam Legislative Assembly, formed after shrill demands by the opposition parties, asked the government of Assam to follow the expert committee recommendations and take necessary action with the centre.

Fuelling fire to the suspicion of their being New Delhi's puppet, the oblivious Assam government took no stand in regard to downstream anxious concerns. After a public hearing in Guwahati on 10 September, 2010 former Environment Minister, Jairam Ramesh, wrote in his letter to the Prime Minister, "Personally I believe some of the concerns that were expressed cannot be dismissed lightly...Right now the feeling in vocal sections of Assam's society particularly appears to be that 'mainland India' is exploiting the Northeast hydro-electricity resources for its benefits, while the costs of this exploitation will be borne by the people of Northeast."

Despite such directives, when a defiant NHPC continued the construction of the Lower Subansiri Mega Dam, AASU allied with 26 ethnic organizations including local Mising bodies such as TMPK and MMK in 2010 to kick off a fully-fledged agitation. Significantly, another major organization that has appeared as a powerful player in the anti-dam disquiet since the beginning is the Krishak Mukti Sangram Samiti (KMSS). Its general secretary Akhil Gogoi, RTI activist and peasant leader, who shot to fame with his crusade against corruption in the last five years, has been able to successfully mobilize popular sentiments against the dams over the last one and a half years.

After sporadic disruptions over the 2011 assembly polls and other issues, a full-blown statewide agitation broke out in the last month. On 1 December, more than 3000 activists led by AASU and KMSS filled the Lakhimpur town to block the further movement of an equipment-carrying 14 wheel jumbo carrier towards the Subansiri dam site. One month of full scale protests and an effective blockade against NHPC in Lakhimpur and Dhemaji districts have fired the Assamese public imagination, and given birth to a regional movement. Barely reported in the national or international media, the anti-dam unrest has nevertheless attained such gigantic proportions that a tense state government had to call the agitating groups to the negotiation table on 5 January. So far, though negotiations continue, no consensus has been reached.

After leading a weighty more-than-a-month long blockade, turning aggressive at times, KMSS general secretary Akhil Gogoi is now in Assam's capital city of Guwahati for the first round of talks. Speaking to this correspondent after the dialogue, Gogoi says, "Although we appreciate Government's wish to hold talks, there was no indication that they were ready to draw the project to a halt. In fact, experiences from all other anti-dam movements across the country tell us that the centre will use this as a strategy to calm the protests and delay the process."



Gogoi believes instead that New Delhi's absolute apathy contrasted with its huge peasant participation make it a sustainable movement. Although downstream impact remains a major concern, there are other key issues as well that have fuelled profound resentment and agony in the public debates. The left-progressive faction within the movement has focused primarily on the issue of right over resources. Corporatization of water resources by the centre, they argue, through framing 'imposed laws' such as the National Water Policy is a clear violation of the state's constitutional right over water. "If this is not neo-colonial exploitation, what is?"- retorts a heated Akhil Gogoi.

Dubbing their struggle as an 'anti-imperialist' fight, KMSS has already vowed to resume and intensify the on-street resistance movement. On a slightly different note, AASU however maintains their inclination to pursue a non-radical democratic approach. In an exclusive interview, Dr. Samujjal Bhattacharya, Adviser to AASU and Chairman of North East Students' Organization (NESO), says, "We believe in a peaceful resolution of the issue through talks."

Calling each of the mega dams a Hydro-bomb, Dr. Bhattacharya adds, "We are not against development. But if development comes at the cost of the life, security and civilization of the people of Assam, no way would it be allowed." AASU attributes the project to a biased profit-making motive of the centre where Assam's water resources may serve the national interest, without addressing the decades-long problems of its people. Calamitous floods and erosion create havoc every year in Assam, only to go unaddressed by the government.

Assam's regional politics has always been framed by perceptions of New Delhi's political injustice and economic exploitation. Even a dispassionate look at history validates the sentiments and conditions that animate subnationalism in the region, to the extent of turning militant in the form of the separatist <u>ULFA</u>. In a state where a single public refinery could not be attained without launching a fullscale agitation, despite it being an epicenter of India's oil and natural gas production, what Assam will 'get in return' is a central theme in the mega dams debate as well. The total estimated power generation of the proposed 168 mega dams in Arunachal Pradesh would be around 75000 MW, much of which will be driven out of the region. Call it a cruel joke; Assam, despite having equal rights over the inter-state rivers, will receive only 50 MW as a royalty - 25 MW from the Lower Subansiri Project and 25 MW from the Kameng project. "Such simple arithmetic explains why anti-Delhi sentiments arise in this region" Dr. Bhattacharya remarks.

The future of the anti-dam movement

AASU views this campaign as not only a national issue in Assam, but to a great extent pannortheastern. For that matter, their movement does not limit itself to Lakhimpur and Dhemaji districts, but also encompasses the environmental concerns of other projects such as the <u>Kurichu dam</u> in Bhutan or the <u>Tipaimukh dam</u> on the Barak River in Manipur. As experts have warned of a plethora of environmental, geological, demographic and socio-economic problems, the Lower Subansiri project alone would use 31,000 bighas of pristine forestland in Arunachal, out of which 25,000 bighas will be submerged.

"Given such dangers, we demand a cumulative downstream impact study over the entire stress of the rivers. If peaceful negotiations fail, a full scale blockade movement will remain the only option,"



warns Dr. Samujjal Bhattacharya. His comment cannot be ignored. Showing a remarkable level of restraint, AASU has so far maintained a completely peaceful movement. With its impressive history and the unparalleled influence it enjoys in the Assamese public sphere, a leap into the role of a resistance movement by AASU would paralyze normal governance in Assam.

The state government however argues that mega dams are a must if India is to prevent the diversion of the <u>Yarlung Tsangpo</u> (the upper reaches of the Brahmaputra in Tibet). As China plans for <u>the world's largest hydro-power project in the upstream</u>, New Delhi in that case will have to go to the International Court of Justice to show the beneficial use of the river in India. "But the people of the Northeast will become a pawn in the race between Beijing and New Delhi," Dr.Bhattacharya argues. "Assam's power need is at the maximum 1100 MW which is attained from state's own production and buying electricity from other projects. If we are to be granted First User Rights of the Brahmaputra by showing its beneficial use, we have suggested some multipurpose micro-projects which will both generate electricity for Assam and contain floods and erosion," the AASU leader adds.

In the first week of the New Year, a <u>mega dam broke</u> apart near the Brazilian city of Rio De Janeiro, rendering 13000 homeless. Such earth-shattering accidents have ushered in a new era of decommissioning. As recently as on September 30, 2011, Myanmar's President Thein Sein surprised many by <u>stopping the construction</u> of the \$3.6 billion Myitsone hydroelectric project in the Kachin state. A recent report of the World Register of Dams (WRD) suggests all the capitalist economies in the world including the USA have hugely reduced the construction of mega dams. In fact, the Indian Government, itself, of late has shown greater alertness on the issue of river dams across mainland India. The government has passed strictures on a whole slew of projects from Uttarakhand's Loharinag Pala (on socio-religious grounds) to the Polavaram dam in Andhra Pradesh (on grounds that mandatory public hearings were not held).

Whether such national standards apply to the peripheral Northeast remains the elusive question. The anti-dam movement in the Brahmaputra valley, a local commentator writes, has already surpassed the celebrated Narmada Bachao Andolan (NBA) in terms of numerical strength. The social impact in Indian environmental struggles, be it the NBA or the Chipko Movement, largely remains confined to the affected areas and NGO circles.

In Assam, it has already acquired a significant subnationalist colour that has driven the whole of Assamese civil society towards supporting it. In a region where politics is premised upon the metaphorical poetics of a river as the lifeline of a nation, the anti-dam mobilization is here to stay. As the buzz grows louder, the book that easily attained best seller status in the recent NE Book Fair in Guwahati, was Akhil Gogoi's anti-dam dossier *Morubhumi Ahe Lahe Lahe* (Gently comes the Desert). The dams, without doubt, could turn the downstream valleys into a desert. But if they collapsed, an apocalyptic flood could swallow all in its path.

"Mega dams: campaigning against the plans of the Indian government", 20/01/2012, online at: http://www.opendemocracy.net/openindia/tanmoy-sharma/mega-dams-campaigning-against-plans-of-indian-government

BACK TO TOP

www.ORSAM.org.TR



❖ Crisis in the Yemeni Economy: A Troubled Transition to Post-Hydrocarbon Growth

Yemen's political stalemate is destroying the economy. Violence and labor strife have shut down oil production, the central bank's foreign reserves are being drawn down, and the fighting, demonstrations, electrical outages, and fuel shortages have paralyzed local businesses to the extent that banks and money exchangers are refusing to buy Yemeni Riyal. Like rival mafia dons, Yemeni leaders seem bent on collective suicide to preserve their honor at the expense of the entire country. Their timing couldn't be worse. Just when the economy most needs firm guidance and leadership, the Yemeni elite are turning Sana'a into Beirut 1975.

In spite of the current political conflicts, Yemen will survive. In the medium term, the Yemeni economy is facing a transition away from dependence upon oil exports to a more diversified economy – a welcome development – but unfortunately the success of this transition is itself dependent upon the capacity of the state to manage the economy. Building a diversified economy based upon the variety of capacities that Yemen does possess will require effective coordination of scarce investment resources, strongbureaucratic capacity to manage state finances, political legitimacy to survive the macroeconomic shocks in the global economy, and the creation of trustworthy institutions. All of these will help develop nurture and development the Yemeni private sector – the key to any development project (Rodrik 2011, 1999). But just when the economy most needs effective leadership, Yemen's elite is locked in an internecine struggle that is going to take some time to stabilize, delaying any possible economic recovery.

The immediate fears for Yemen's economy stem from the decline of oil and the scarcity of Yemen's natural resources, water in particular. Dwindling oil revenue is causing serious macroeconomic imbalances that could quite possibly see the collapse of the Yemeni Riyal as devaluation leads to spiraling inflation in prices of imported goods. This would be a short term crisis though, related to a crisis of confidence in the state. In the long term, successful economic growth is not dependent upon natural resource endowments. If natural resources were the basis of prosperity, Sub-Saharan Africa would be wealthy, not the poorest region in the world. Yemen's GNI per capita is still twice the Sub-Saharan average despite Yemen's scarce resources. As is evident from the African case, natural resources can actually be a curse (Collier 2010; Stiglitz 2006) and Yemen's recent economy exhibits some characteristics of an oil cursed economy: the weak bureaucratic capacity of the oil dependent state and growth in service and construction rather than in commodity producing sectors.

The vast majority of water in Yemen is a renewable natural resource whose source is the rain. However, deep well pumping technology has enabled Yemenis to draw down aquifers, essentially 'borrowing' on the future. FAO estimates very broadly that Yemen as a whole is drawing about 168% of its annual freshwater resources, so the rate of "borrowing" is quite high. Agriculture use alone consumes 90% of Yemen's water, so if agriculture can use water more efficiently there would be more water for urban consumption. And if water withdrawals are regulated and limited, aquifers will recharge at rates varying with local geology. The long term implication is that water is not so much running out as mismanaged and that the solution to Yemen's water scarcity lies in state leadership and capacity, just as the economy requires effective state leadership.

Indicators of Development



Obviously this year will not be good one for the Yemeni economy. Prior to the political crisis, growth was forecast to be about 3.4%, but now the economy will shrink substantially. In the heat of the political crisis Ali Abdalla Saleh is accused of betraying the promise of Yemeni unity and there is no doubt that the Yemeni economy could have achieved far more had it been better managed, but the reality is that the Yemeni economy has achieved substantial progress over the last twenty years since Unity, not to mention since the establishment of the Republic forty years ago. In fact, in 2010 the Yemeni economy grew at 8% as a result of the new LNG exports.

If we can rely upon the broad sets of indicators from the international development agencies, the Yemeni economy has made remarkable achievements, even in the last few turbulent years. GDP per capita has been slowly but steadily rising, in spite of high population growth rates, from \$400 per capita in 1992 to \$1,060 in 2010 (World Bank). It is often said that Yemen is one of the poorest countries in the world but in the groupings of the world's economies by the international development agencies, Yemen straddles the line between the middle and lower income groups, sometimes included at the top of the lowest income group (UNDP) and other times occupying the bottom of the middle income group (World Bank). In fact, Yemen's GDP per capita is higher than Kenya (\$760), Vietnam (\$930), Pakistan (\$1000), and not far from India (\$1220).

Although Yemen will fall short on its Millennium Development goals, its progress has been substantial. Life expectancy in Yemen has risen from 53 in 1995 to 63 years in 2009 (IMF 2009). The primary school enrollment ratio has increased significantly as well, from 51.7% in 1990 to 75.3% in 2004. Today 84% of Yemenis between the ages of 15 and 24 are literate, up from 50% in 1990. By comparison, the current number in Chad is 46%, in Benin 54%, and in Nigeria 72% (World Bank).

Yemeni infrastructure has been transformed as well from what it was in the 1970's. In 1970 few roads were even paved, but by 2001 there were 8,202 kilometers of paved roads and there are 13,768 kilometers of paved roads in 2009. Sana'a is now ringed by 16 over/underpasses built in the last ten years.

And while population growth rates have been famously high by world standards, they have fallen in the last ten years from 3.7% to 3.0% as is expected with the increasing development and urbanization that Yemen is experiencing (CSO 2010). Yemen has entered the early phases of its demographic transition.

There are, of course, negative trends as well. Poverty has spread in the last year. Government spending significantly reduced poverty in the main cities in the middle of the decade (Poverty Assessment Report 2007), but with the recent decline in state revenue poverty has increased. Overall, proportion of people in Yemen living on less than \$1.25 per day is 42%, up from 37% a few years ago. No doubt the dislocations of the war in the north and the repression of the civil disobedience movement in the south have increased poverty as well. The current conflict in Sana'a will not help matters.

Still, Yemen's poverty is not particularly intense by world standards. Yemen's poverty rate is on a par with the South Asian average of 40% and below the average of Sub-Saharan Africa of 50%

www.ORSAM.org.TR



(World Bank). Mozambique's poverty rate is now 60%, down substantially from 82% in 1997. By comparison Yemen is not particularly poor.

Furthermore Yemen is not a highly indebted country. It does not qualify for the World Bank and IMF's Highly Indebted Poor Country program for debt relief. In the last decade Yemen enjoyed significant trade surpluses which it used to build a solid reserve of foreign currency as well as stay out of heavy debt. Yemen's debt is about 6 billion USD which amounts to about 20% of GDP, low by international standards. All of that debt is public and about half is supplied by multilateral lending agencies and half to individual countries. Russia is the largest creditor of Yemen followed officially by Saudi Arabia, China, and Japan. The United States offers little direct credit to Yemen, though the US is a large contributor to the multilateral programs. Per capita aid to Yemen is also quite low by international standards.

So why the worry about the economy?

The immediate concern in the summer of 2011 is the possible collapse of the Riyal due to the political infighting that has interrupted oil exports and is drawing down foreign reserves. (The riyal rebounded the morning after Ali Abdalla Saleh left the country for treatment in Saudi Arabia.) In the medium term, the Yemeni economy is very dependent upon oil and oil is running out.

Yemen's economic achievements since 1970 have been underwritten by two resource booms. The first was caused by the OPEC oil embargo in 1973 and the vast expansion of construction on the Arabian Peninsula that followed. Yemeni workers made up a substantial proportion of the Saudi construction industry. Remittances sent home from Yemeni laborers raised domestic incomes significantly and reoriented the Yemeni economy towards the importation and distribution of foreign consumer goods. Trade, transport, and commerce became the backbone of the domestic economy and agriculture declined.

When remittances began to stagnate in the mid-1980's the Yemeni economy entered a period of transition to an oil export economy. At first oil exports played only a small role in the economy, but one that was nonetheless critical in keeping the economy afloat. The remittance era was declared dead in the early 1990's when the Yemeni economy was punished by Saudi Arabia and the United States for Yemen's support of Iraq in the 1991 war. Saudi Arabia revoked the special status of Yemen workers and expelled some 800,000 Yemenis from the Kingdom in a matter of weeks. The United States cut all aid and withdrew the USAID mission in Sana'a. (Surprisingly, in absolute value remittances have actually remained steady over the years at about 1.2-1.5 billion USD rather than declining, but the growth of the Yemeni economy has reduced the relative macroeconomic importance of remittances. In microeconomic terms, remittances remain a very important source of supplementary income for many households.)

After Yemen's civil war, the Yemeni leadership entered an agreement with the IMF to implement a structural adjustment program as part of Yemen's effort to emerge from its isolation and reintegrate itself into the American led global economy. Yemen deregulated and privatized its economy and the IMF praised Yemeni officials for their diligent implementation of the program. Economic growth



did follow the implementation of the IMF program, but not because of the policy changes. Instead, by the late 1990's oil production was driving economic growth and the Yemeni economy began a decade long dependence on oil exports.

Oil Dependence

Yemen was never a large producer of oil by global standards. By 1995 Yemen was producing about 350 thousand bbd and production peaked at about 450 thousand bbd in 2001, after which it began a slow but steady decline. (Saudi Arabia can produce 12 million bbd.) Yemen was fortunate though, that just as oil production began to decline, world oil prices rose steeply and cushioned the economic impact of the decline of Yemen's production. So while oil production was declining, revenues were still climbing. In the last few years Yemen oil revenues were tied more closely to the turbulent price of oil in the international economy than to production levels. Oil prices rose dramatically in the overheated years before the US banking crisis and then dropped precipitously with the global financial collapse. And now the fear of disruptions of oil due to political events in the Middle East has driven oil prices back up again.

Oil transformed the Yemeni economy and state. From a small proportion of the Yemeni economy in the 1990's, oil grew to dominate exports, constitute about a third of economic output, and contribute about 75% of the state's revenues. The period from 2000 to 2010 in Yemen will be remembered as the

Oil raised incomes and enabled substantial public investment that is reflected in the improvements in education, health, and infrastructure. During Yemen's oil decade about 20% of GDP was devoted to domestic investment (Central Bank of Yemen Annual Report 2010).

...and its Curse

Oil had its negative impacts, though. One is that growth in the Yemeni economy was most rapid in communications and transport, and in commerce and trade, rather than in the commodity producing sectors. The recent decline of oil from about a third of GDP to about 10% of GDP left communications, trade, commerce, and transportation to dominate the Yemeni economy. Manufacturing declined from 13% of GDP in 1994 to 7% in 1999 and 5% through most of the oil decade (IMF 2001, p. 146 and CSO Statistical Yearbook 2010). Yemen experienced the same kind of outcome of other oil dominated economies suffering from the "Dutch disease" – declining importance of domestic commodity producing sectors – but for different reasons; Yemen's domestic industry is hampered more by a poor investment environment rather than the effects of a strong currency making domestic products uncompetitive.

Another negative impact of oil was the atrophy of the state bureaucracy. The state came to rely upon easy oil income rather than develop its capacity to tax and regulate the economy. About 75% of state revenue came from oil during Yemen's oil decade whereas in the early 1990's it was only about 30% of state revenue. In the last couple of years the Yemeni state began working to develop sales tax collection and the local private sector began a political tug of war over the issue. The negotiations meant that the Yemeni regime recognized the importance of the Yemeni private sector and was



working to find a way to incorporate private sector interests into the regime, but unfortunately the current fighting has side lined the whole issue.

Fuel subsidies ate a considerable portion of the oil revenue. This is a clear example of an economic failure of Ali Abdalla Saleh's state. In 2008 when oil prices peaked at \$140 per barrel and the Yemeni state reaped record oil rents, fuel subsidies ate 40% of state revenues, meaning that billions were spent subsidizing Yemeni fuel consumption. Yemen spent its windfall on imported refined fuels.

For years the IMF had been urging the Yemeni government to reduce subsidies to domestic fuels and domestic food, but the Yemeni government resisted for several reasons. First, the Yemeni opposition exploited the issue for political gain. The ruling party split with its erstwhile ally, the Islah, in the parliamentary elections of 1997, and Islah began a new role as true opposition and organizer of the street. The opposition claimed that the government was not only causing harm to the average Yemeni by withdrawing subsidies, but more importantly that it had surrendered Yemeni sovereignty to the IMF. Riots broke out when ever subsidies were reduced. Second, smuggling subsidized fuel to African markets was a lucrative business. Some powerful people were getting rich on subsidies and the regime counted on the support of those benefiting immensely from smuggling. (Ali Abdalla Saleh recently responded to opposition charges of corruption by alluding to those who enriched themselves on African smuggling, naming Ali Muhsin and the al-Ahmar brothers.) Third, subsidies did actually reduce poverty though, of course, at great expense. The World Bank estimated that poverty would rise by 8% if subsidies were withdrawn and no other mitigating measures were taken. Had the Yemeni state had the legitimacy and capacity to target transfers to the poor and allow domestic fuel prices to rise to world market prices, many billions of dollars could have been used for productive infrastructure investments such as schools and power plants.

Now that oil is running out though, the positive and negative impacts of oil are going to disappear and this has most people very concerned about the Yemeni economy. While the decline of oil is a short and medium term concern, in the long term the Yemeni economy is transitioning to a more diversified economy. The future of Yemeni economy will not be dominated by any single resource like remittance or oil.

Liquid Natural Gas

The LNG project at Balhaf is the biggest investment project ever in Yemen, but it will not replace declining oil revenues. Gas piped from the fields in the Marib region (across the former border of north and south Yemen) and shipped to far away markets is expected to produce about a billion USD per year for the Yemeni economy (current GDP is about 26 billion USD) and about 100 million US dollars in average annual tax income for the government for the next twenty five years (out of a current annual budget of about six billion USD). So while gas revenues will not dominate the Yemeni economy like oil did, gas revenues will make a significant contribution in the future.

Most of the revenues from the gas project will go to foreign investors, but the ownership structure of the project will give the Yemeni government two steady incomes in the future. Unlike oil where the government received a portion of the product in kind to sell (Production Sharing Agreements), in the



gas project the government is an investor and will receive a portion of profits once initial construction costs have been paid off. The state's Yemen Gas Company is 16.73% owner of the project and the General Authority for Social Security and Pensions owns another 5% interest in the project. The government will also receive tax revenues that are progressive, starting at 25% and reaching 90% late in the life of the project.

Agriculture, Water, and Food Security

Many people suggest that Yemeni agriculture might play an important role in Yemen's post hydrocarbon economy, but agriculture's capacity to grow is quite limited. Agriculture is related to two critical issues in Yemen: water and food security. In general the relative weight of agriculture in the Yemeni economy has declined. Agriculture now accounts for about 10% of total annual output and about 30% of Yemeni labor works in agriculture. This is not unusual as development is usually accompanied by a move away from agriculture in the economy. In the Yemeni case it is also a reflection of resource scarcity, primarily arable land, which is in turn dependent upon water. In standard development models rising productivity in agriculture lowers the proportion of labor involved, but in Yemen there is simply no more land to cultivate. If Yemen had water resources then more land could be brought into production, but water scarcity limits the expansion of agriculture.

Yemen is rich in water and arable land relative to the rest of the Arabian Peninsula, but that only means that Yemen is less desolate than some of the more desolate places on earth. The Ministry of Agriculture estimates that only about 3% of Yemen is cultivated but the extent of cultivated land varies considerably each year depending upon rains. In the last few years, Yemen's land under cultivation has varied between 1.3 and 1.5 million hectares out of a total area of 45.5 million hectares. In the United States about 18% of land is arable, in Morocco about 14%, and in Syria 28%. The rest of countries of the Arabian Peninsula have even smaller percentages of arable land than Yemen.

Although it really rains in Yemen unlike in the rest of the Arabian Peninsula, water is still scarce. Yemen today has one of the lowest per capita fresh water supplies in the world. This is a result of rising population and limited water supplies. Yemen's water comes only from the rain that falls in the highlands. Yemen has no rivers bringing water from other areas such as the Nile in Egypt, the Tigris and Euphrates in Iraq or the Hindus in Pakistan. Yemen also does not have the luxury of great wealth to invest in desalination plants like the GCC countries. There are large fossil aquifers that have been discovered during oil exploration in the east, but these will only forestall the long term issue of managing limited water.

Agriculture uses 90% of Yemen's water. About half of Yemen's agricultural land is rain fed and the other half is irrigated. The Ministry of Agriculture indicates that 32% of the cropped area in 2009 relied upon wells whereas 17% relied upon flood or spate irrigation – water that flows down from the mountain highlands towards the sea in large washes that is then channeled into agricultural fields. Most of the rain fed agriculture is dedicated to cereals and sorghum is more than half of all cereal production. Sorghum is not only a drought tolerant grain but also a valuable fodder crop. Sorghum was Yemen's staple crop until rising incomes allowed imported rice and wheat become Yemen's staples. Today Yemen imports over 90% of its wheat and all of its rice.



The heavy dependence upon imports is a threat to food security. Food security does not mean self-sufficiency in food production, but it does mean secure access to food. National self-sufficiency makes no sense in an interdependent global economy where trade allows nations to take advantage of comparative advantages. It makes no sense for the UAE to grow wheat with expensive desalinated water. It is far more efficient to import wheat to the UAE. But the UAE is wealthy and oil exports give it plenty to trade for food, so the UAE is food secure though it has no agriculture. Yemen is not food secure because Yemen has depended upon oil exports to pay for food imports and oil exports are vulnerable. Although oil is running out, in 2009 crude oil still made up 84% of exports; rice and wheat were the second largest import item by value, about 10% of total imports, behind refined fuels, about 12%.

While Yemen's macroeconomic conditions would seem to suggest developing greater self-sufficiency in food supplies, the scarcity of water must also be taken into account. Economists have begun using the concept of "virtual" water which takes into account the amount of water needed for the production of an item. Water scarce regions logically should import items that require lots of water for production, rather than using their own scarce water to produce them – a kind of comparative advantage in water resources.

There is substantial room for conservation within Yemen's agricultural sector. The FAO estimates that water conveyance in Yemen is extremely inefficient. Yemen experiences extreme negative water balances, meaning that more water leaves the area than enters (and that there are no lakes), and as a result large amounts of water are lost to evaporation or into the soil during conveyance in ditches or in flood irrigation. Using pipes and other irrigation means, particularly for permanent crops, would significantly increase water efficiency (FAO).

Qat is one of those permanent crops that would benefit from irrigation systems. Qat is not a narcotic, but a mild stimulant, used by Yemenis as a social medium, like a bar or a coffee shop. For farmers qat is a very important source of income. Returns on Qat per hectare are higher than any other crop, though vegetables are close to the per hectare value of Qat (Ministry of Agriculture 2009). Qat is cultivated on 10% of Yemen's agricultural land, uses about half of the water used in agriculture, constitutes about 3% of GDP, but accounts for a full third of total value of agricultural production. Fruit and vegetables were the next most valuable crops at 22% and 16% respectively. Qat only grows at higher elevations and Qat must be delivered fresh to the market the day of harvest, so Qat cultivation is concentrated around the highland urban markets, particular Sana'a and Amran governorates.

While there is room to improve water efficiency in Yemeni agriculture and some potential for expansion, there are clear limits to the growth of agriculture because of limited water and land. Agriculture, like LNG, will play a role, but not a dominant role, in Yemen's future economy.

Other Natural (and human) Resources

Yemen has many other resources that can be developed. Yemen is rich in minerals and commercially exploitable rock and there is already investment in the mining sector (World Bank 2007). There is the Port of Aden, a natural deep water port along a strategic water transportation route. The Yemeni



highland's dry and temperate climate is a wonderful summering spot for wealthy GCC residents and Yemen's rugged mountains, scenic oases, and beautiful coastlines are attractive spots for tourism.

And of course there is still a large excess of Yemeni labor willing to go to great distances to work. Remittances have remained steady in the Yemeni economy at about 1.5 billion USD over the last twenty years and while remittances will not return to the importance they once had in the 1970's, there is still plenty of room for expansion. The GCC imports large amounts of labor and Yemen has a large excess of labor. The relationship between the GCC and Yemen is much like the relationship between the United States and Mexico, except that Yemeni nationals are more numerous than GCC nationals. The GCC is reluctant to significantly increase Yemeni labor, but their objections are largely political rather than economic. They claim that the labor force has changed and that unskilled Yemeni labor is not needed, except that there are still high rates of construction and there are plenty of low skilled labor opportunities in the service sector. There are already some small scale programs by the GCC to train Yemeni labor in Yemen and then give them jobs in the GCC. But the GCC is afraid of Yemenis because they are Arabs, they are culturally close to the GCC countries, and they come from a country that is a republic, has elections, and adheres to the idea of democracy, equal rights, etc. These are dangerous ideas to the GCC. The monarchies and princedoms fear that Yemenis will make claims on the state, unlike Asian labor that has no intention of staying in the Gulf, and will upset the politically sensitive relationship between GCC nationals and the large number of immigrant laborers upon which the GCC depends. On this issue, the United States could actually play a useful leadership role in overcoming Gulf objections to Yemeni labor.

Domestic Manufacturing and Services

The most important factor in Yemeni economic development is not however, natural resources or exporting its labor; it is stimulating domestic private and public investment. What we call development is a result of social organization, of human relationships. People create wealth. Of the classic factors of production – land, labor, and capital – Yemen has the first two in abundance, but is lacking in the third, capital. Capital is not a thing though, it is a social relationship. In order for Yemen to create wealth, to raise incomes, and to develop, social relationships in Yemen must be reoriented towards the creation of wealth.

Wealth comes from domestic social relationships – institutions that cultivate savings and investment – rather than the importation of foreign wealth in the form of FDI, or aid. FDI and aid can help, of course, but only in as much as they can be usefully absorbed by the domestic economy. A number of Yemen ministers have commented that one of the most frustrating experiences is to have aid resources but be unable to use them because the country lacks the social capacity to invest. This is because Yemen does not have the institutional framework for domestic investment, whether by foreign aid, FDI, or most importantly, domestic private savings. The Yemeni private sector is dominated by merchants who supply the country with imported finished goods. The biggest of these are tied to the Yemen regime through the awarding of supply contracts to the military or to the government. Domestic manufacturing is very limited and the majority of manufacturing is on a very small scale, serving local assembly, such as the metal workers that supply a myriad of construction needs in Yemen. There are only a few domestic manufacturers that compete with imported finished goods, mostly in food processing.

www.ORSAM.org.TR



Rodrik (1999; 2011) has shown that since WWII, successful developing economies are those that can induce what he calls an "investment transition," meaning a sustained period of high levels of investment. In all cases, these investment transitions are induced by a state that implements a coherent domestic investment plan geared toward increasing the productive capacity of the country. Coordination and sequencing of investments in key sectors of the economy are an important part of a national investment plan. It is not simply an increase in investment, but coordination of investment in key sectors that are designed to best increase the wealth of the country. In all of the cases examined by Rodrik, it was not foreign resources that developed the economy, but domestic resources. Stimulating the domestic private sector is the key to successful development, as opposed preparing the ground for foreign investors. FDI follows growth, it does not cause it. Foreign investors look to growing markets and opportunities; they do not look to transform institutions in a local economy. This is the job of the local state in conjunction with the domestic private sector.

All of the above requires a large degree of state capacity. State must have qualified and capable personnel capable of managing and implementing a national economic program and a bureaucracy that can efficiently generate state revenues and then use them effectively. State capacity implies that social conflicts do not weaken the state's ability to implement its programs and that the state commands sufficient legitimacy to manage the inevitable disruptions that global integration causes. Yemen is experiencing a severe 'disruption' in the economy as a result of the forced transition away from its oil dependence. Had the Yemeni state effectively used the resource rents of the past decade and planned for the coming transition, the social impact would have been far less severe.

Thus the future success of Yemen post hydrocarbon economy is dependent upon the political success of the next regime to build an effective and capable state, rather than the size of Yemen's natural resource endowments. In as much as the next Yemeni regime can build trustworthy institutions and nurture a conducive domestic investment environment, the transition will be successful.

"Crisis In The Yemeni Economy: A Troubled Transition To Post-Hydrocarbon Growth", 19/01/2011, online at: http://nationalyemen.com/2012/01/19/crisis-in-the-yemeni-economy-a-troubled-transition-to-post-hydrocarbon-growth/



***** UK eyes ME water sector

DUBAI — British companies are bringing their water and wastewater expertise to the UAE for exploring business opportunities and further strengthening existing commercial partnerships between the two countries.

A high-level delegation of companies from the United Kingdom water and wastewater sector recently visited Abu Dhabi and Dubai. The principal focus of the mission was water and wastewater treatment and the UK group represented a broad range of skills and technologies from project feasibility to implementation.

The delegates were part of a seminar organised by UK Trade & Investment, or UKTI, Dubai, at which they showcased their expertise and vision for the sector to a number of local companies and government organisations in the UAE.

"The target is to introduce companies in the UK water sector who are looking to trade internationally. Some of them have been here before and some first time and they are just looking to see whether there are opportunities for them here," British Water international marketing executive Bridget Orr told *Khaleej Times* at the seminar in Dubai.

British Water is the lead organisation for the UK water and wastewater industry, representing just under 200 of the most active companies in the sector. For this reason British Water has been appointed by the UKTI to manage the organisation of this visit.

Some of the companies are established here and they want to build up their reputation or introduce new products or new services or new technologies, Orr said, adding: "Basically it's to promote British business here in the Middle East."

UK companies help countries across the globe develop integrated, sustainable approaches to water resource management. The UK's traditional industrial expertise and scientific excellence combined with strong innovative approaches to technology, policy and regulation have ensured their global competitive advantage.

After the UAE, the delegation's next stop will be in Saudi Arabia this week. "We have nine companies visiting the UAE and 16 companies visiting Saudi Arabia," Orr said. "We have Atkins with us and they are the largest UK engineering company and they are the largest UK company working in the Middle East. They are very well established here and have done a lot of projects," she said.

The delegation also has consultants and suppliers familiar with this market, she said, adding: "They are looking for different regions in the world and they think the Middle East may be having a good opportunity for them."

"From British Water's point of view we have 180 companies that are in the UK water industry and about 95 per cent of them are looking to trade internationally. So that's the majority and most of our companies around 85 per cent are small to medium enterprises. So all the big companies already have international cooperation. And even our smaller companies are beginning to want to trade internationally," she said.



"We look at different target markets," Orr said, adding that target markets in Middle East are the UAE, Saudi Arabia, Oman and Qatar. In addition to the Middle East, India and China are other markets in Asia in focus, she added. "We also look at South America, Europe and Turkey as target markets."

Imtech managing director Bruno Speed, one of the delegates, said that the company is looking for opportunities in whole region, but there are some key markets in focus. "Key ones for us are Qatar and Saudi Arabia." Abu Dhabi is also an important market, but there are already some established players, he added.

Ian Gibbons, Deputy Consul General of the British Embassy Dubai, said: "This seminar will enable lasting relationships and business to be achieved between our two countries and I look forward to seeing the results in the coming months and years."

The UKTI team in Dubai will look for further opportunities in this sector that are mutually beneficially to both sides, Gibbons added.

The UKTI is the arm of the UK government that supports overseas trade and inward investment, to encourage UK companies to do business in the UAE and to promote technological and commercial partnership.

Following the seminar an evening networking reception was held at the British Embassy hosted by Gibbons, where the water wastewater delegates met with senior representatives of the largest local companies and administrators specialising in the water sector.

The UK delegation also visited senior representatives at the Dubai Electricity and Water Authority, Federal Electricity and Water Authority and Drake & Scull where discussions were held about the UK water and wastewater capability.

"UK eyes ME water sector", 22/01/2012, online at:

http://www.khaleejtimes.com/DisplayArticleNew.asp?col=§ion=business&xfile=data/business/2012/January/business_January389.xml