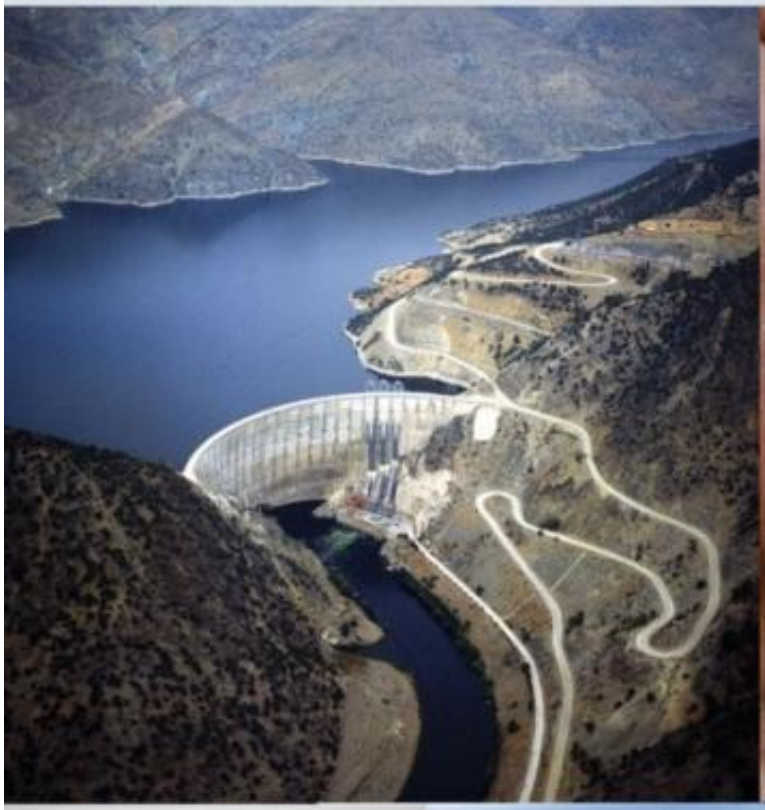


ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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





Issue 77

ORSAM WATER BULLETIN

21May- 27 May 2012

- Iraq lost 64m of underground water in three years
- Arab League prepares for holding Arab Ministerial Council water meeting in Baghdad
- Agricultural irrigation network in Kfri to be extended
- Dewana Dam falls behind Schedule
- Pumping and Technical Services' Iraq contract frustrated by red tape
- With Syria in turmoil, Iran seeks deeper partner in Lebanon
- Water, power plans underway
- Iran Caspian Sea Water Transfer Project
- Stealing Syrian Water Favors Israeli Expansionism, Officials Denounce
- Despite criticism, 2005 plan to move water from Red to Dead Sea still alive
- MCA-Jordan floats tenders for water projects in Zarqa
- Coca Cola Palestine wins award for sustainable development
- Water Authority requires greater transparency'
- Amman residents remain distrustful of tap water
- Fayyad: Water crisis due to Israel's control of resources
- New Sderot Water Reservoir Rescues Agriculture in the Negev
- Mekorot looks to improve India's water projects
- Water apartheid leaves Palestinian children ill
- Community water saving project to receive cash influx amid huge demand
- Israeli Companies Win Bids For Gaza Reconstruction
- The Israeli Occupation is Responsible for a Water Crisis in Palestinian Territories
- A Fine Brine: New Desalination Technique Yields More Drinkable Water
- Feed the world
- White gold: Are Egypt's cotton industries beyond salvation?
- Global Scarcity: Scramble for Dwindling Natural Resources
- Late for School After a Long Journey for a Drop to Drink
- UNESCO Heads East Africa Water Search

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

- **Mapping Global Water Stress**
- **E&Y releases detailed report on water usage in India**
- **Mamata inaugrates Ganges riverfront Project**
- **Team Anna support to anti-dam protests in Assam**
- **AIADMK raises issue of check dams in Lok Sabha**
- **Grand debate on Kalabagh Dam: Govt silence on Kalabagh Dam causing Rs 132bn annual loss**
- **LAHORE, May 21: Speakers at a debate here on Monday called for early construction of Kalabagh Dam and described the water reservoir as a must for Pakistan's survival.**
- **Asian cities develop new indicators for 'climate resilience'**
- **Can China Cope with Its Water Crisis?**
- **Govt's assurance against Chinese dam plan not convincing**
- **The resistible rise of Asia?**
- **How Can We Ensure Clean Water for All?**
- **WWF receives award for contribution to the conservation of Vietnam's Tram Chim National Park**
- **$2.9bn for water, energy projects**
- **Chile's vanishing Patagonian lake**
- **Big Hydropower Dams Trump Alternative Energy in Chile**
- **In new film, UCI professor warns of water crisis**
- **H2O Innovation: Professional Water Technologies holds first annual international distributor conference, adds two new distributors in South America**
- **Xayaburi study questioned**
- **Report examines how land, water and energy must be managed as a whole**
- **Annual Event to Focus on Water Industry Issues**
- **Dams Two Last**
- **Uganda to Spend More Than $1 Billion on Karuma Hydropower Plant**
- **Water and human nature**
- **Govt nods draft anti-water wastage law**
- **World Bank publishes report on Arab water reuse**

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Iraq lost 64m of underground water in three years

ERBIL, May 27 (AKnews)- Northern Iraq is losing its underground water resources in an increasingly high speed, warned an official.

Muhammad Amin FaresDue to draughts, digging illegal and legal wells and consuming underground water for drinking and irrigation, Kurdistan Region is losing its underground water wealth very quickly, said Mohammed-Amin Fars Pendroyi, general director of water resources in Kurdistan Ministry of Agriculture.

He said in the past 11 years the level of the underground water in some areas has reduced 100 meters.

For reaching underground water one has to dig 350m in Erbil, 250m in Suli, and again 250m in Duhok. While 11 years ago one could reach underground water at only 180m to 220m depth in Erbil, 90 to 150m in Suli and 150m in Duhok.

The level is receding very fast which is very "dangerous", Pendroyi said.

2000 through 2008 in Erbil's Mala Omar neighborhood for instance the level decreased 18m but in the same area three years later the level lowered 45m more.

In the past three years in Duhok's Akre city the level lowered 12 meters and in Suli's Halabja seven meters.

Pendroyi said that now more water is consumed comparing to past while the snowing and raining rates are decreasing annually.

He was especially concerned about digging wells, especially the illegal ones.

He said there are 4,800, 7,828, and 2,034 legal wells in Erbil, Suli and Duhok, respectively, and 2,000, 17,000 and 40 illegal onces in the three provinces successively.

Most of the wells are dug with Syrian-made equipments which Syria has itself banned in the country in order to preserve its underground water, according to Pendroyi.

He advised the government to provide for drinking and irrigation water from the rivers "or one day the underground water will mix with other components and it cannot be used… the wells will also get dry … then a disaster will happen."

"Iraq lost 64m of underground water in three years", 27/05/2012, online at:
http://www.aknews.com/en/aknews/3/309219/

BACK TO TOP

❖ Arab League prepares for holding Arab Ministerial Council water meeting in Baghdad

CAIRO, May 21 (AKnews) - The Arab League in cooperation with Iraq has started the final preparations for convening of the fourth session of the Arab Ministerial Council for Water in Baghdad on May 29.

Ambassador Mohammed bin Ibrahim Al-Tuwaijri, assistant secretary general of the Arab League for economic affairs, said the meeting will discuss a number of issues. This includes follow-up assignments on the 2011 Arab Economic and Social Development Summit about water security strategy in the Arab region to face the challenges and future requirements for sustainable development.

Also on the agenda is the follow up on the implementation of the integrated management of water resources for sustainable development in the Arab region, as well as the millennium development goals for water supply and sanitation.

Participants will discuss the issue of Arab cooperation in the exploitation of common water resources, the legal framework of common groundwater in the Arab region, and strengthening the negotiations of the Arab countries about shared water resources with non-Arab countries.

There will also be talks about cooperation with Arab, regional and international organizations, communities and civil society institutions in implementing the council's work program for 2012 - 2013.

A report will be presented to the council about the Arab participation in the sixth World Water Forum that was held in Marseille in March, as well as the Arab preparation for the seventh forum in Korea in 2015.

The first Arab water conference is expected to be held under joint organization by the Ministry of Water Resources in Iraq and the Arab Ministerial Council for Water on May 30. The gathering will last for two days.

The conference will address the application of international law in the protection of water rights in common waters with non-Arab countries.

The conference will also discuss a number of issues, the most important being the common international rivers in international law, the principles and criteria for the apportionment of water resources, the experiences of Arab countries in dealing with shared water, and managing Arabic water resources.

"Arab League prepares for holding Arab Ministerial Council water meeting in Baghdad", 21/05/2012, online at: http://www.aknews.com/en/aknews/3/308265/

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Agricultural irrigation network in Kfri to be extended

ERBIL, May 23 (AKnews) - Kurdistan's Ministry of Agriculture and Water Resources has decided to extend the agricultural irrigation network in Kfri at a distance of three square kilometers.

The cost of the project is 256m IQD ($220,000) and will be executed over 18 months, said project supervisor at the ministry Khaldoon Abdul Karim.

He added: "We'll rely on Bawa Shasuar Dam in water irrigation which has built recently in Kfri."

Bawa Shasuar Dam is 240km long, 27m deep and can store 6.5 million cubic meters of water. The dam was built at a cost of 12bn IQD ($10m) within the Kurdistan Region's budget.

"Agricultural irrigation network in Kfri to be extended", 23/05/2012, online at:
http://www.aknews.com/en/aknews/3/308590/

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Dewana Dam falls behind Schedule

Dam to generate power, irrigate land and be a tourist attraction

Dewana Dam, on Dewana River in the Qaradagh subdistrict, south of Suleimaniya, will not be finished on time.

The dam, which will be 42 meters high, with a capacity of 20 million cubic meters of water, was designed by local Dler Company, and is being built by Hovar Company with a European partner.

According to Ibrahim Tofiq, project engineer, the budget for the project is 15,984,785,000 Iraqi dinars.

The electricity production capacity for the completed dam is 90 megawatts, which is only enough electricity to supply the surrounding area.

The design phase started on Oct. 17, 2010. According to the contract, the deadline for completion is May 2013.

"The project's life is approximately 912 days, but I don't think we will finish on time," explained Tofiq. "We might finish in fall 2013."

Tofiq explained that some of the initial stages took more time than originally planned. Changes to the initial design, which took several months, also delayed progress.

"Now the design is finalized and the implementation has started," said Tofiq.

The project, started by Kurdistan Regional Government"s Ministry of Agriculture and Water Resources, is expected to benefit the area and its people.

Rizgar Amin, a Qaradagh resident, said: "This dam will have a lot of benefits for our area, as it will save a huge amount of water that could be used for agriculture and power production."

"Besides, the dam will change the landscape and will attract tourists," added Amin. "So, this will boost the economy and the lives of the people in the area."

The project does have a downside, as it will flood a significant area of the land surrounding it.

One of the landowners, whose land will be flooded, says the project will damage his farm, which is his family's only source of income. He also said he and other landowners are not sure whether the government will compensate them for their land.

Tofiq raised another issue, which is the dumping of sewage from the surrounding towns and villages into the river, which will eventually go into the dam.

"The sewage pollutes the water, which means it limits the water's potential use," Tofiq told The Kurdish Globe.

The engineer also noted this issue was not considered in the original design and there is no plan to treat the sewage before it goes into the dam.

"For this reason, the rainwater and the sewage will be mixed and all the water will be polluted," said Tofiq. "We have already submitted a proposal to the mayor of Qaradagh for the separation of the sewage water from the rainwater to prevent pollution. According to the proposed project, it is recommended that the budget for the project will be added to the original dam project so they will be done in parallel and in an efficient way."

The sewage project has not yet been approved by the authorities, so the potential for pollution remains.

"Dewana Dam falls behind Schedule", 21/05/2012, online at: http://www.kurdishglobe.net/display-article.html?id=763A67D477E261179144DDF90B981185

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Pumping and Technical Services' Iraq contract frustrated by red tape

A family firm hired to help refill marshes in Iraq drained by Saddam Hussein says government red tape is delaying the job. Pumping and Technical Services, based at Adlington Industrial Estate, Cheshire, has won a £2m contract to provide custom-made pumps to flood the dried-up landscape which is a world heritage site. The firm beat five other bidders from across the world to work with contractors for the Iraqi Ministry of Water Resources. But a planned visit to Macclesfield by officials and contractors to inspect the pumps was cancelled after the UK Border Agency refused them visas. The firm's engineering manager Stephen Egerton said: "It's incredibly frustrating – we are trying to build a relationship with these people in Iraq to do an important job. "The government says it wants to grow manufacturing and export but we just aren't seeing that. "There's a lot of money being spent on this and we want to grow our company and create more jobs. "We have offered legitimate business reasons for them to come here – we understand they need to question why people are coming in from Iraq but there is a complete lack of communication, which makes everything very difficult." The Iraqi contingent, including water resources minister Dr Abdul Latif Jamal Rashid, planned to visit the firm's £500,000 test site. However, they were refused visas at the British embassy in Baghdad and told to apply from outside the country. Two representatives flew to the British embassy in Beiruit, where letters of application were declined - because they were in Arabic, according to the firm. Mr Egerton said: "The embassy also had their passports for two weeks so they were trapped awaiting the decision. "The embassy requires letters be in their original form and yet refuse them because they aren't in English. "If I were them I would now be planning to take my business to a country where it's not so incredibly difficult to get visas. The contractors have appealed against the decision and are waiting to hear back from the British embassy in Baghdad. MP David Rutley, parliamentary private secretary to immigration minister Damian Green, has met company boss David Hooley to discuss the problem. Mr Rutley said: "I'm continuing to work on the immigration aspects of the case and Damian Green's office are urgently clarifying the remaining steps in the immigration process and I've updated Mr Hooley on progress and will continue to do everything I can to ensure that this issue is resolved as speedily as possible - it has gone on too long." *Saddam Hussein set up drainage schemes and dam-building to empty the Arab marshes in southern Iraq. The United Nations Environmental Programme says about 90 per cent of the 20,000 sq km of marshlands were lost - displacing the native Madan tribes. Rebels and deserters who had fought against Iraqi government forces in the early 1990s had taken refuge in the marshes. When Saddam's regime was toppled, the new administration set out to reflood the marshes.

"Pumping and Technical Services' Iraq contract frustrated by red tape", 23/05/2012, online at: http://menmedia.co.uk/manchestereveningnews/news/business/s/1523648_pumping-and-technical-services-iraq-contract-frustrated-by-red-tape

BACK TO TOP

❖ With Syria in turmoil, Iran seeks deeper partner in Lebanon

ANNOURINE, Lebanon >> The Islamic republic of Iran recently offered to build a dam in this scenic alpine village, high in the Christian heartland of Lebanon.

Farther south, in the dense suburbs of Beirut, Iranian largess helped to rebuild neighborhoods flattened six years ago by Israeli bombs — an achievement that was commemorated this month with a rollicking celebration.

"By the same means that we got weapons and other stuff, money came as well," the Hezbollah leader, Hassan Nasrallah, exclaimed to roars of approval from the crowd. "All of this has been achieved through Iranian money!"

Iran's eagerness to shower money on Lebanon when its own finances are being squeezed by sanctions is the latest indication of just how worried Tehran is at the prospect that Syria's leader, Bashar Assad, could fall. Iran relies on Syria as its bridge to the Arab world and as a crucial strategic partner in confronting Israel. But the Arab revolts have shaken Tehran's calculations, with Assad unable to vanquish an uprising that is in its 14th month.

Iran's ardent courtship of the Lebanese government indicates that Tehran is scrambling to find a replacement for its closest Arab ally, politicians, diplomats and analysts say. It is not just financing public projects, but it is also seeking to forge closer ties through cultural, military and economic agreements.

The challenge for Iran's leaders is that many Lebanese — including the residents of Tannourine, the site of the proposed hydroelectric dam — squirm in that embrace. They see Iran's gestures not as a show of good will but as a stealth cultural and military colonization.

"Tannourine is not Tehran," groused Charbel Komair, a City Council member.

The Lebanese have largely accepted that Iran serves as Hezbollah's main patron for everything from missiles to dairy cows. But branching out beyond the Shiites of Hezbollah is another matter.

"They are trying to reinforce their base in Lebanon to face any eventual collapse of the regime in Syria," said Marwan Hamade, a Druse leader and Parliament member, noting that a collapse would sever the "umbilical cord" through which Iran supplied Hezbollah and gained largely unfettered access to Lebanon for decades.

"Hezbollah has developed into being a beachhead of Iranian influence not only in Lebanon but on the Mediterranean — trying to spread Iranian culture, Iranian political domination and now an Iranian economic presence," Hamade said. "But there is a kind of Lebanese rejection of too much Iranian involvement here."

That has not stopped Iran from trying. Mohammad-Reza Rahimi, Iran's first vice president, arrived in Beirut a couple of weeks ago with at least a dozen proposals for Iranian-financed projects tucked

under his arm, one for virtually every ministry, Lebanese officials said. The size of the Iranian delegation — more than 100 members — shocked government officials. Lebanese newspapers gleefully reported embarrassing details of the wooing; in their haste to repeat their success in forging closer ties with Iraq, for example, the Iranians forgot to replace the word Baghdad with Beirut in one draft agreement.

Iran offered to build the infrastructure needed to carry electricity across Iraq and Syria into Lebanon. It offered to underwrite Persian language courses at Lebanon's public university. Other proposals touched on trade, development, hospitals, roads, schools and, of course, the Balaa Dam in Tannourine.

Yet virtually no substantial new agreements were signed. The Iranian ambassador, Ghazanfar Roknabadi, reacted like a spurned suitor, grumbling publicly that Lebanon needed to do more to carry out agreements. The embassy in Lebanon rejected a request for an interview, but Iran's state-run Press TV quoted Roknabadi as saying, "The Iranian nation offers its achievements and progress to the oppressed and Muslim nations of the region."

Therein lies the rub. Syria, run by a nominally Shiite Muslim sect, fostered its alliance with Iran as a counterweight to Sunni Muslim powers like Saudi Arabia. The alliance was built more on confronting the West and its allies than on any sectarian sympathies.

In Lebanon, a nation of various religious sects, many interpret Iran's reference to "Muslim" as solely "Shiite Muslim." Hezbollah insists that is not the case, that the money comes with no strings attached and is for the good for all Lebanese.

"The Iranians say, 'If you want factories, I am ready, if you want some electricity, I am ready,' and they do not ask for any price in return," said Hassan Jishi, the general manager of Waad, the organization that rebuilt the southern suburbs. (The name means "promise" in Arabic, referring to Nasrallah's promise to reconstruct the area.) It cost $400 million to build apartments and stores for about 20,000 people, Jishi said.

Half the money came from Iran, Nasrallah said in his speech, adding that he had telephoned the country's supreme leader, Ayatollah Ali Khamenei, to ask for reconstruction aid even before the August 2006 cease-fire with Israel. Both Khamenei and President Mahmoud Ahmadinejad responded generously, he said.

"We owe a special thanks to the leaders of the Islamic republic of Iran, to the government, to the people, because without Iranian funding, we could not even have begun to achieve what we did," Nasrallah said.

In the southern suburbs, what was once a jumble of haphazard construction is now neat rows of handsome tangerine-and-rose-colored apartment blocks with elevators, generators and parking. But anarchic power lines still crisscross the streets like so many cobwebs, because the electricity supply remains hit-or-miss. Lebanon suffers from a chronic shortage of electricity, generating just 1,500 megawatts against a peak summer demand of 2,500 megawatts.

Iran's project to finance the dam appeared to be aimed at addressing such problems — and winning hearts and minds by meeting a need the government has so far failed to address.

Here in Tannourine, the sound of rushing water ricochets off the high valley walls, riven with caves where the first Christian monks sought sanctuary from prosecution centuries ago. Restaurants built over the Joze River draw a weekend crowd from Beirut, 45 miles south, for long lunches of meze and shish kebab washed down with smooth, locally made arrack. Local springs also feed one of Lebanon's most popular bottled-water brands, called Tannourine.

The idea of a dam proved popular among the 35,000 inhabitants because it would both generate electricity and provide for irrigation, said its Mayor Mounir Torbay.

The dam was included in Lebanon's 2012 budget and the contract was awarded to a Lebanese company, the mayor said. Then it got embroiled in local politics.

A prominent Christian politician trying to one-up his rivals asked the Islamic republic for $40 million for the dam, and Iran agreed in December, provided an Iranian company built it. Most of the solidly Christian area's population was horrified by the prospect that the Iranians would move in, said Torbay, most likely bringing their mosques, their wives and perhaps even their missiles. Many suspect some company with links to the Revolutionary Guards will get the contract.

"We want the dam badly but we don't want an Iranian company to build it," the mayor said. "They are from a different religion, a different social condition."

There are still about 70 churches in Tannourine, with 22 dedicated to the Virgin Mary, and most Christians feel that their culture and tradition face enough threat already throughout the Middle East, residents said.

"One of the dreams of Iran is to gain a foothold over the mountains," said the mayor. "It is important for them to oversee the Mediterranean. So Lebanon is a full part of their strategy."

The fate of the project remains uncertain. The Cabinet is inclined to accept the $40 million, not least because most foreign aid has dried up since a Hezbollah-dominated alliance formed the government last year.

As to Iranian plans to prevail in Lebanon, many Lebanese point out that the Christians and Sunni Muslims have failed at that endeavor before.

"I think the Iranian project to control Lebanon is a candidate for failure, too," said Sejaan M. Azzi, vice president of the Lebanese Forces, a political party and once a Christian militia. "We don't have confidence in Iranian economic aid; we consider it part of a political, security, military project."

"With Syria in turmoil, Iran seeks deeper partner in Lebanon", 25/05/2012, online at: http://www.staradvertiser.com/news/nyt/20120525_With_Syria_in_turmoil_Iran_seeks_deeper_partner_in_Lebanon.html

❖ Water, power plans underway

Some 220 water and power plant projects are underway by the government under "Mehr Mandegar" plan, said deputy energy minister for water.

Mohammad Reza Attarzadeh said 26 power plants with the capacity to generate 12,124 megawatts of electricity will become operational by the end of the tenure of the tenth government, of which three are hydro-power plants, one is wind-power plant and 22 are thermal power plants, IRNA reported on Friday.

The construction of four thermal power plants in the provinces of Kermanshah, Zanjan and Semnan (Bastami and Qods) are near completion, he said.

The official added that the annual electricity production capacity of the country which presently stands at 66,000 megawatts will increase to 74,000 megawatts by June 2013.

Meanwhile, Deputy Energy Minister for Electricity and Energy Affairs Mohammd Behzad said some 1,500 megawatts of electricity are being exported per second.

He said that Iran exports electricity to Pakistan, Afghanistan, Turkey and Iraq.

The official also said that some 8.6 billion kilowatt/hours of electricity worth $1 billion were exported during the past Iranian year (ended March 19, 2012).

Some 10 billion kilowatt/hours of electricity are expected to be exported in the current year," he said.

Behzad said that plans are under study to increase electricity export to Syria and Lebanon through Iraq.

Earlier, advisor to deputy energy minister for electricity and energy affairs also said Iran will export electricity to Syria and Lebanon in the near future.

Abdol Hamid Farzam Behboudi said that an agreement was signed during the joint meeting of the energy ministers of Iran, Iraq, Syria and Lebanon.

He added that based on the agreement, electricity will be supplied to Lebanon and Syria in two phases, pointing out that 50 MW and 200 MW of electricity are expected to be exported in the first and second phases respectively.

The official said currently, some 1,000 MW of electricity are exported to Iraq, adding the Energy Ministry is to increase the figure to 1,200 MW, of which 50 MW will be transited to Syria.

Given that Lebanon does not have land border with Iran, the route of Iraq-Syria-Lebanon has been selected for electricity exports, he said.

Implementation of the Subsidy Reform Plan by Iran has contributed to the reduction of domestic power consumption, paving the way for more electricity exports to neighboring countries.

"Water, power plans underway", 27/05/2012, online at: http://www.zawya.com/story/ZAWYA20120527053400/Water-power-plans-underway-in-Iran/

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Iran Caspian Sea Water Transfer Project

It is seen that, there is water scarcity today and in the forthcoming period projections in Iran both because of low average of rainfall and also because of increasing population and urbanization. Iran, whose precipitation rate is below the world average, has chosen to overcome inter-basin water imbalance and water need by providing inter-basin water transfer. During the National Comprehensive Water Study, which was carried out in Iran in 2005, the renewable annual water resource per capita was set as 2000 cubic meters; while it was estimated to be 1000 cubic meters for the year 2025. As stated previously, there are major differences in quantity of inter-basin water per capita. Within the five-year development plans between the years 1989-2003, particularly Caspian basin and Persian Gulf – Omman sea basin waters were transferred to the Central basin through the water lines, built and to be built, in order to meet the water need. The Karoon and Dez rivers play an important role in inter-basin water transfer. In the assessments carried out by Iran, it was indicated that these projects do not disturb the water balance of donor basin, and the amount of water transferred was measured to be at a very low level, as well as it would not affect any of the projects to be carried out in donor basins in the future. Besides, it was also stated it didn't do any environmental harm, nor did affect socio-economic structure of the area. Iran has been carrying 2,110 million cubic meters of water in its inter-basin water transfer projects in operation. Iran's transferring water from the Caspian Sea to the Semnan city, Central Iran, for irrigation and drinking purposes has been on the agenda for a month. Within the scope of this project, which will cost some 1,5 billion dollars, desalination facility and pipelines will be built. In the first desalination facility to be built in the first stage, annually 200 million cubic meters of water will be transferred through the pipelines to be built at 500 km long. When all the stages are completed, totally 500 million cubic meters of water will be transferred from the Caspian Sea to Central Iran, the Dasht-e Kavir.

Some MP's addressed questions to Iranian President Mahmoud Ahmedinejad regarding why these high-cost projects are carried out instead of saving Lake Urmia. Mohammad-Reza Attarzadeh, Iranian Deputy Minister of Power and Water, stated in his speech that three areas located in Central Iran will be provided with water to be transferred from the Caspian Sea, and that they would carry water to the capital of Mazandaran Province, Sari city, as the first pillar of the project; and then to Semman, Qom, Kashan and İsfahan. With regard to Lake Urmia, which started to dry up in late 2011, the member of parliament Soleiman Zaker issued a call for his colleagues to allocate fund in order to transfer water to Lake Urmia, while 2,5 billion cubic meters of water was transferred to İsfahan. Approving the allocation of 900 million dollars of fund to save Lake Urmia on October 2011, Iran announced that she thought of transferring water also from Iran's Kurdistan region to the basin aside from Aras River, with the projection that the water transfer from the aforesaid river would remain insufficient; and that she also stopped construction of the dam which started to be built near Lake Urmia, besides the water transfer.

Caspian Sea Water Transfer Project which was planned to be completed within 24 months and launched on 16th April 2012, was indicated to contribute to development of the country. While the

environmentalists, on the other hand, considered this project as far from being scientific and practicable; they also stated that the cost of water transfer was quite high. Regarding the project with on-going discussions, last week, there was certain news in the press suggesting that Supreme Audit Court and certain ministries and General Inspection Office of Iran (GIO) requested the documents related to this project from the Ministry of Energy. The comments in the press indicate that requesting documents is unusual.

Iran, which has been striving to overcome the water need of provinces by providing inter-basin water transfer so far, has been striving to overcome her water need by transferring the Caspian Sea water to central provinces. Transferring water among the basins within its own borders for many years, Iran has not held any consultation with riparians of the Caspian Sea on this project. Obtaining water by doing desalination in the Caspian Sea has already been carried out beforehand. However, those projects are not as large-scaled as Iran's project. While other countries located on the Caspian border such as Russia, Turkmenistan, Kazakhstan and Azerbaijan draw attention to the unclear legal status of the Caspian Sea; the ecologists express their worries about the effect of the project on ecological structure of the Caspian Sea in an area with an example such as the Aral Sea.

Reference:

http://www.payvand.com/news/12/apr/1261.html
http://en.trend.az/regions/iran/2025930.html#popupInfo
http://www.rferl.org/content/iran_pumps_caspian_water_to_desert_city/24549731.html
http://news.yahoo.com/iran-launches-1-5b-water-project-caspian-sea-104539767.html
http://www.orsam.org.tr/tr/SuKaynaklari/analizgundemgoster.aspx?ID=2129

"Iran Caspian Sea Water Transfer Project", Tuğba Evrim Maden, ORSAM, 25/05/2012, online at: http://www.orsam.org.tr/en/WaterResources/showAnalysisAgenda.aspx?ID=1740

BACK TO TOP

❖ Stealing Syrian Water Favors Israeli Expansionism, Officials Denounce

Damascus, May 25 (Prensa Latina) The Israeli occupation steal water resources of the Syrian Golan for their plans of settlements in the Palestinian territories, denounced Syrian authorities on Friday. The Governor of Qunaitera province, Hussein Arnous, said that the Zionist entity steals more than one billion cubic meters of water annually and drags it to the occupied Palestine to provide the Zionist settlers with their needs of water.

Arnous reiterated to the UN and the international community to take on responsibility and prevent Israeli authorities from continuing stealing the natural resources of the occupied Arab territories.

According to residents and authorities in the occupied authorities, Israel continues stealing water resources of the occupied Syrian Golan, especially lakes of Masaadeh and Tabariya, in addition to building dams on valleys and preventing people of Golan from investing in water resources.

SANA news agency reported that Tel Aviv authorities imposed high taxes on citizens in those areas to make use of the collected rainwater in their agricultural lands and they arrest those who reject to pay.

"Stealing Syrian Water Favors Israeli Expansionism, Officials Denounce", 25/05/2012, online at: http://www.plenglish.com/index.php?option=com_content&task=view&id=510371&Itemid=1

BACK TO TOP

❖ Despite criticism, 2005 plan to move water from Red to Dead Sea still alive

The shrinking Dead Sea may be topped off with water from the Red Sea, under a controversial 2005 World Bank project.

Environmental and rights groups say there are significant adverse effects of transporting water from one salt-filled sea to the other, with even the bank's internal inspection panel acknowledging that there are "legitimate concerns" about the long-planned project.

"There will be a chemical reaction," said Gidon Bromberg, Israeli director of EcoPeace/Friends of the Earth Middle East, a coalition group of Jordanian, Israeli and Palestinian environmentalists that has been vocal in its criticism of the plan since it was first set forward in 2005.

The reaction caused by mixing the two waters, Bromberg said, will produce a calcium compound that will change the color of the historic Dead Sea.

He said the project will turn the sea a whiter color, cause it to reflect light and heat, and lead to increased temperatures in the surrounding area, which will have effects on the surrounding ecology, including some rare species that make their homes in the unique environment.

The circulation of water in the Gulf of Aqaba, the planned departure point for the water, would also cause a change in water temperature there, an area with highly sensitive coral ecosystems.

The optimistically named "peace conduit" plan to replenish the waning Dead Sea with Red Sea water was first put forth in 2005, when the Israeli, Jordanian and Palestinian Authority governments came together at the World Economic Forum and talked about solutions for the draining Dead Sea.

Since then, Bromberg's group and others have continually expressed their disapproval of the scheme, saying it is a poorly designed Band-Aid for a much greater problem.

"It doesn't deal with the root causes, firstly the waters that have been taken away from the Jordan River," he said.

Agricultural industries in Syria, Jordan and Israel all siphon water from the river, which used to replenish the Dead Sea. In addition, chemical companies sanctioned by the Jordanian and Israeli governments harvest the rich chemical wealth of the sea using inefficient and outdated drying techniques.

Before taking water from the neighboring Red Sea, Bromberg said "We should look at challenging these policies."

By some estimates, the Dead Sea has lost 14 cubic kilometers of water in the last 30 years; most say its shoreline recedes by about a meter a year. It's a dire situation, according to the World Bank, and the solution could lie in the nearby Red Sea. The official project website says that scientists and politicians have looked to the Red Sea as a new source of water since the area was first industrialized in the first half of the 20th century.

"This is a big idea to address a big problem, namely the dying of the Dead Sea," Alex McPhail, study manager for the World Bank, said in a 2010 press release, amid increasing criticism.

"The World Bank is supporting the governments of Jordan and Israel and the Palestinian Authority in an ongoing investigation into the very complex science, engineering and economics that would underpin any such undertaking," he said.

In 2011, two Palestinian organizations, Stop the Wall campaign and the Palestinian Farmers Union, in addition to the Global Initiative for Economic, Social and Cultural Rights, an international human rights NGO, filed a complaint with the bank's internal inspection panel saying that in addition to the environmental dangers, the project is slanted to benefit Israeli, not Palestinian land and water use.

"The bank's refusal to seriously examine alternatives that restore the water flow of the Jordan River, and that can support the existence and persistence of the Jordan Valley communities in the area, invariably plays into the hands of Israeli attempts to forcibly expel them in order to illegally annex the valley and to colonize it with its settlers," Jamal Juma of the Stop the Wall campaign told the Bretton Woods Project, a World Bank and International Monetary Fund watchdog.

In March, the World Bank denied the environmental and activist groups' requests that an investigation be conducted into the plan before the first stages of the project begin.

The bank's own inspection panel wrote in a report that it "did not recommend an investigation of whether the Bank has complied with its operational policies and procedures related to the Study Program because of certain unique and special circumstances and uncertainties at this stage."

However, it added, that the groups "are raising legitimate concerns, such as potential adverse environmental effects on the Dead Sea, potential adverse effects on sources of water for the population in the West Bank, and the issue of legitimizing current off-take of water in the Jordan River Basin and from the Dead Sea."

Since March, there has been no news on how, or whether, the bank is going forward with the project. The bank has invested approximately US$16 million in conducting a feasibility study, but after five years, it has yet to issue a final report or conclusion.

Now, Bromberg fears that governments are in secretive and non-transparent discussions with the bank. He said his group has consulted with Egyptian officials at the country's embassy in Tel Aviv, who have been seeking more information about the project.

"We're very worried about everything being negotiated behind closed doors, and then the World Bank coming out with an announcement that everything is fine and plans are going forward," he said.

"Despite criticism, 2005 plan to move water from Red to Dead Sea still alive", Egypt Independent, 21/05/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=5024

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ MCA-Jordan floats tenders for water projects in Zarqa

AMMAN — The government on Saturday announced it has floated tenders to attract offers for the Water Network Project that seeks to restructure and rehabilitate the water supply system in Zarqa Governorate that will be funded by the US Millennium Challenge Corporation grant. The Millennium Challenge Account-Jordan (MCA-Jordan), said in a statement e-mailed to The Jordan Times yesterday that it has also inviting pre-qualified firms to collect the tender and bid for the project that aims to rehabilitate and expand the wastewater system in the northern governorate, populated by around one million inhabitants.

MCA- Jordan was established in 2010 as a company fully owned by the government of Jordan to manage and implement the $275 million programme. The Water Network Project, according to the statement, is one of three projects within the grant programme to alleviate poverty in Zarqa by decreasing the population's reliance on expensive alternative sources of water and supporting SMEs who could benefit from increased water supply

"MCA-Jordan floats tenders for water projects in Zarqa", Jordan Times, 21/05/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=5026

BACK TO TOP

❖ Coca Cola Palestine wins award for sustainable development

RAMALLAH/ISTANBUL (Ma'an) — A Palestinian company producing Coca Cola products has won the international group's first award for sustainable development in Africa and Eurasia.

The National Beverage Company Coca Cola/Cappy received the top award at a ceremony in Istanbul last week, among 96 Coca Cola bottling partners operating the regions.

"For more than 14 years, the company has been producing a variety of high quality local and international beverages including juices, carbonated drinks, and mineral waters," the company's general manager Imad Al-Hindi told Ma'an.

"The Palestinian market is full of obstacles and hardships, which the company turned into motives to serve the Palestinian society," he added.

The company, based in Ramallah, holds the license for producing Coca Cola products in Palestine. Chaired by Zahi Khouri, the group sponsors projects to support youth and children, sports, health, environment and education in Palestine.

"Coca Cola Palestine wins award for sustainable development", Maan, 21/05/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=5029

BACK TO TOP

❖ Water Authority requires greater transparency'

According to Taub study, Israel's Water Authority will be facing growing challenges in meeting its responsibilities, more public involvement is required.

Due to the ever-growing demand for water resources, escalating costs and a decline in natural sources, Israel's Water Authority will be facing increased challenges in meeting its responsibilities, a task that will require more transparency and public involvement, a new study has reported.

The study by the Taub Center for Social Policy Studies in Israel was conducted by Prof. Yoav Kislev of Hebrew University's Robert H. Smith Faculty of Agriculture, Food and Environment. Kislev was also a member of Israel's 2010 Bein Commission on water administration.

Over the past 50 years, the amount of water available per capita in Israel has drastically decreased as a result of a population growth that exceeds the rate of water resource production, according to the report.

Meanwhile, although the amount of water supplied to the country's water economy grew by 35 percent between 1960 and 2010, there has been a steady decline in agricultural consumption of freshwater, with purified water increasingly replacing the natural source.

As water has been increasing in scarcity, prices for purchasing the resource have simultaneously escalated, jumping from NIS 0.5 per cubic meter in the 1950s, to NIS 1.7 per cubic meter in the 1960s, to around NIS 3 per cubic meter in recent years, the report explained.

In 1960, 1.3 billion cubic meters of water were supplied in Israel and in 2010, the number grew to 1.8 billion cubic meters.

However, due to the ever-increasing population, total per capita consumption during that time period has dropped from over 600 million cubic meters to under 300 million cubic meters. In households, per capita consumption has remained largely the same throughout the period, at around 100 million cubic meters.

"The government has failed in its administration of water resources, having overdrawn water and damaged natural sources, both of which have resulted in shortages that have worsened the crises during periods of drought," according to Kislev's report summary.

Water policy management needs to focus on preserving resources, preventing exploitation and over-pumping from reservoirs, as well as performing proper water conservation planning for drought and emergency periods, Kislev wrote. The report, however, charges that the government has not fulfilled its duties in these sectors and has heavily engaged in over-pumping.

As rainfall and natural water resources continue to decrease and the population enlarges, the freshwater supply is shifting to the urban sector, while the agricultural sector is relying more heavily on purified and desalinated water, the report explained.

Although freshwater use in agriculture, which consumes 50% of Israel's water supply, has been steadily declining, the quantity of water available to agriculture is still insufficient to meet the country's food production demands. This, in turn, causes Israel to indirectly "import" water in the form of food products, Kislev wrote.

"The government's work is done by overextended employees subject to heavy pressures, which impairs their ability to function properly – sometimes leading to a bias in their decision making," he added. "To counteract government failures, it is imperative to increase both transparency and public involvement in the water economy."

When contacted by The Jerusalem Post, the Water Authority spokesman said he will comment only after officials there have read the full report.

"Water Authority requires greater transparency'", Jerusalem Post, ", 22/05/2012, online at:
http://mideastenvironment.apps01.yorku.ca/?p=5054

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Amman residents remain distrustful of tap water

AMMAN — Despite a drop in the number of complaints on the quality of drinking water in the capital, residents still avoid drinking from the tap and prefer bottled water, according to a survey.

A customer satisfaction survey carried out by the Jordan Water Company (Miyahuna) showed that customers avoid drinking tap water, fearing it is contaminated.

"Although the number of quality-related complaints have dropped, people still buy their water from purification plants," Jumana Ayed, head of Miyahuna's communication and water awareness department, told The Jordan Times on Tuesday.

Miyahuna figures indicate that the number of quality-related complaints totalled 137 during 2011, a drop of 43 per cent compared with 2010.

"The majority of last year's complaints were due to turbidity," Miyahuna's 2011 annual report indicated.

To raise people's awareness about the safety of drinking water, Miyahuna, which is responsible for the water and wastewater services in Amman, organised a campaign at its headquarters in Jabal Hussein to highlight the safety of tap water.

"Our staff members are meeting with customers and explaining to them about programmes and efforts to ensure that drinking water is safe. It is vital for people to know that tap water is safe and introducing them to our efforts is the key," Ayed underscored.

Last year, 92,317 samples were collected to test the quality of water at the source and in water networks, the report showed, indicating that the samples underwent 418,924 tests.

Compliance of the collected water samples to microbiological tests stood 100 per cent, according to the annual report.

Following a 1998 water pollution crisis, people lost trust in the quality of drinking water and turned to water purification plants and bottled water as an alternative.

According to official figures, there are around 32 bottled water factories, 542 local water purification plants and five mineral water bottling plants in the Kingdom.

"Amman residents remain distrustful of tap water",Jordan Times, 23/05/2012, online at:
http://mideastenvironment.apps01.yorku.ca/?p=5056

BACK TO TOP

❖ Fayyad: Water crisis due to Israel's control of resources

RAMALLAH (Ma'an) — Israel's control of Palestinian water resources in the West Bank is responsible for the water crisis, PA Prime Minister Salam Fayyad said Monday.

Opening a conference on water and the prospects for agricultural development in Palestine, Fayyed said strategic vision and a long-term plan were needed to resolve the crisis.

The two-day conference was organized by the Palestine Technical University, the Ministry of Agriculture and the Palestinian Water Authority.

Conference president Mahmud Rahil said Palestinian farmers must be supported, and that the water shortages were a political issue as Israel controls 85 percent of the water resources in the West Bank.

Palestinians must secure their water rights, Rahil said.

A UN Office for the Coordination of Humanitarian Affairs report released in March said Jewish settlers had seized dozens of natural springs in the West Bank, barring Palestinians or limiting their access to scarce water sources.

The report added: "Since the beginning of its occupation in 1967, Israel has established and maintained a system of direct control over the exploitation and distribution of West Bank water resources."

Jewish settlers consume 300 liters per capita per day, compared to around 70 liters consumed by Palestinians.

Settlers are connected to the Israeli water network, which draws from wells in the West Bank and Israel. Most of the water allocated to settlers is used to produce agricultural goods for export, UNOCHA says.

Meanwhile, around 300,000 Palestinians in the West Bank are vulnerable to water scarcity, the report adds.

Around 14,000 people rely on tankers of water at five times the price of piped water. They have access to around 30 liters a day, one-tenth the quantity accessed by settlers.

"Fayyad: Water crisis due to Israel's control of resources", Maan, 23/05/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=5058

BACK TO TOP

❖ New Sderot Water Reservoir Rescues Agriculture in the Negev

The new reservoir established with the support of the JNF USA Parsons Water Fund will supply treated sewage water for irrigation use by local farmers and end pollution of Nahal Shikma

When the late Natan Parsons visited the Sderot region some five years ago, he immediately understood the vital need for a local reservoir for reclaimed sewage water. This reservoir is designed to supplement local farmers' water allocation and prevent effluent from flowing into Nahal Shikma Nature Reserve and polluting the river, the ground water and the sea.

The vision of the late Natan Parsons, formerly Vice President of JNF USA, became an exciting reality this week, with the inauguration of Sderot Reservoir. Among those present at the ceremony were Israel's Deputy Minister of Defense Matan Vilnai, KKL-JNF Director-General Yael Shaltieli, JNF USA CEO Russell Robinson, members of the JNF USA President's Council Mission, heads of the Sderot and Shaar HaNegev Regional Councils, members of the Parsons family and representatives of the donors.
JNF USA CEO Russell Robinson said at the ceremony: "Your reservoir, Natan, is an expression not only of your vision for a greener Israel, but also of the destiny shared by Sderot residents and members of the local kibbutzim. But without the many donors who contributed to it, this vision would not have been realized."

Sderot Reservoir has a capacity of around one million cubic meters, and it deals with effluent from the town of Sderot, Kibbutz Erez, Kibbutz Or HaNer and nearby factories. The treated water will be used to irrigate 5,000 dunam (approx 1,250 acres) of orchards and citrus groves. The sewage treatment plant adjacent to the reservoir is at present being upgraded so as to enable it to purify the effluent to the highest level, allowing it to be used to irrigate public parks and all types of crops.

"Sderot Reservoir is part of Natan's vision of helping farmers, improving water quality, enhancing the environment and encouraging tourism in the Negev," said his widow Amy Parsons. "I have no doubt that he would be very excited and proud to see how the various organizations have cooperated to complete the reservoir. Natan is always in our hearts, and he is here with us today."

The master of ceremonies was Zeev Kedem, Director of KKL-JNF's Fundraising Department, who told those present: "We have experienced seven successive years of drought here in Israel, but fortunately a number of people have had the vision to get up and do something to improve the situation. The reservoirs that KKL-JNF is building throughout the country are changing farmers' lives. Desalinated water is not suitable for agricultural use, as it is expensive and lacks minerals, but the purification of reclaimed water, like that which will be stored in the Sderot Reservoir, can save the country's agriculture."

Amnon Zarka, a farmer from Kibbutz Erez, recalled how, when he plowed the local fields in his youth, he would occasionally stumble upon ancient water cisterns. "Today, as in Biblical times, life in the desert is dependent upon the water sources available," he said, speaking on behalf of the farmers. "This new reservoir will enable us to irrigate thousands of dunam of citrus and other crops. The local farmers would like to thank everyone who has supported this excellent and important water project."

Sderot Mayor David Buskila concurred: "The reservoir will enable us to save almost one million cubic meters of water. In the future it will be hooked up to Sderot, and we shall use this water to irrigate our parks and gardens, so that residents can enjoy living in a beautiful and well cared for town. We who live in the arid Negev have been aware for years of the grave water problem that afflicts the whole country. But there are a few people, and Natan Parsons of blessed memory was among them, who did more than just talk about the situation – they looked for solutions. The reservoir that has been established here gives us life. We are proud to have such Friends in the US."

Head of Shaar HaNegev Regional Council Alon Shuster emphasized the reservoir's important contribution to the environment: "Instead of polluting the environment and the little water we have, from now on we shall be able to recycle the water and irrigate our fields". He added that, apart from its significant contribution to the environment and agriculture, the reservoir will also strengthen the endurance of the local people. "The knowledge that we are not facing this struggle alone, but that Jews in the US and the rest of the world are standing shoulder to shoulder beside us heartens us greatly".

Sderot Reservoir is situated some two kilometers distant from the border with the Gaza Strip. For years residents of Sderot and its environs have lived in the shadow of Qassam rocket attacks. Deputy Defense Minister Matan Vilnai mentioned the security aspects of strengthening communities in the area. "It's not just the army that fights the war for our right to live in this country," he said. "Supporting the local people strengthens the community and ensures that we shall remain here."

The JNF Parsons Water Fund invests in the development of new sources of water, in order to improve Israel's water economy. According to Sharon Davidovich, KKL-JNF emissary to the US who is also Director of the Fund, the plan is to support the following: the establishment of forty new reservoirs within the next five years; the use of cutting-edge technology to upgrade sewage treatment plants; and drilling for water. The Fund is also involved in river conservation and rehabilitation work, including the Beersheba River Reclamation Project. Its educational activities include the operation of a water-saving study program in seventy schools throughout Israel. The fund's projected investment for the coming decade is 100 million dollars. "Israel's water economy is in a protracted state of crisis, and we have taken a heavy task upon ourselves," said Davidovich.

Mark Perlman was a close friend of Natan Parsons, and when he learned of the water-related projects his friend wanted to promote, Perlman immediately enlisted to help with this vital enterprise. "The water crisis is a serious problem that Israel is facing now, and which the whole world will have to confront soon," he said. "Sderot Reservoir is an excellent example of what a difference people can make when they work together. It's exciting to see how an idea that was proposed a number of years ago has been transformed into an active project that will change the lives of the local people."

Kenneth Segel said that a Walk for Water had been held in New York's Capital District in order to raise funds for Sderot Reservoir. The event, which was held in memory of Susan Shpeen, the wife of Rabbi Scott and a well-known figure in the community, was attended by two hundred people and raised tens of thousands of dollars.

The President's Council Mission, which comes to Israel every year, includes major donors from the USA. The delegates travel round the country and take a close look at the projects they have

supported. This year the mission comprises 32 members from all over the USA who have come to Israel for a week-long visit focusing mainly on the Negev. The Sderot Reservoir inauguration ceremony formed part of their itinerary.

Rick Krosnick, Chief Development Officer in JNF USA and Director of the President's Mission, explained that when Friends of KKL-JNF see for themselves what has been done with the money they have donated they understand that their contribution really does make a difference. "You can see the smiles on the delegates' faces when the local people tell them how vital the various projects are," he said.

JNF USA CEO Russell Robinson summed up the Sderot Reservoir inauguration ceremony by saying, "The work that we do here is designed to build and develop. Every drop of water that we manage to recycle means life. Israel recycles more water than any other country in the world – 80% of its water is recycled. Each drop of water is too precious to be used only once. Sderot Reservoir will have a very significant contribution to make."

A duo of young local female singers added a pleasant musical dimension to the ceremony as they performed, among other songs, Olam Shalem ("A Whole World"). When they reached the chorus and sang the words "everything here is in our hands" their listeners displayed profound emotion. This, indeed, is the message to be learned from the establishment of the reservoir: when people get together, take responsibility and work towards a common goal they can make a real difference to every aspect of life.

"New Sderot Water Reservoir Rescues Agriculture in the Negev", Jerusalem Post, 23/05/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=5052

BACK TO TOP

❖ Mekorot looks to improve India's water projects

MEKOROT, ISRAEL'S national water company, has completed its first-phase talks with several state governments for development of water projects in India.

"We have completed talks with the West Bengal, Uttarkhand, Maharashtra and Tamil Nadu governments, and with planning commission. We want to tie up with the states and municipalities and improve the quality of water projects in India," said Ofer Laufman, CEO of the company, while participating in a discussion in New Delhi on 'Indo-Israel cooperation for development of water projects in India'.

"The company already participated in several tenders," he added.

"Mekorot has extensive experience in initiating and developing water and waste water projects in South America, the Far East, Africa and east Europe, and it supplies 80 percent of Israel's drinking water and 70 percent of its entire water supply," said Laufman.

Dr Mahesh PS Gandhi, the Managing Director of Singapore-based AFII Corporate Advisors Pte Ltd, said, "The tie-up with Mekorot will bring a socio-economic revolution in India, and it will be public-public partnership programme."

AFII represents Mekorot's interest in India and supports building of strategic alliances and partnership with state governments.

"The company has a wider perspective of working for welfare of the people and has the best technology for waste water treatment and management of water resources," added Lior Frumkes, Vice-President.

It ensures lower life-cycle costs, quality service, more dependability and a lower cost of consumption per unit to state governments. The s area of activities covers water resource management.

"Mekorot looks to improve India's water projects", 23/05/2012, online at:
http://www.tehelka.com/story_main52.asp?filename=Fw230512Mekorot.asp

BACK TO TOP

❖ Water apartheid leaves Palestinian children ill

Faqua is one of many Palestinian villages not connected to a water network. A few kilometers east of Jenin, it is located right on the edge of the massive wall that Israel continues to build in the West Bank.
Unlike most of the other villages in the area, however, Faqua is allocated a certain amount of water from the Mekorot (Israel's national water company) pipe that serves Jenin and is used to serve the Israeli settlements of Kadin and Ganim, which were evacuated in 2005. Following talks with Israel in 2005, the Palestinian Water Authority managed to obtain a quota of 300,000 liters of water per day for the village. Before 2005, the water from Faqua came from an "illegal" connection in Jenin, but the water was contaminated.
Yet for Faqua's roughly 4,000 inhabitants, 300,000 liters amounts to a mere 75 liters of water per person per day — well under the minimum of 100 liters recommended by theWorld Health Organization.
Moreover, the filling point from which the PWA water tanker brings the water is located halfway between Jenin and Faqua, about 6 kilometers outside the village. The filling point is the only source of water available to the village — since Israel controls all sources of freshwater in the West Bank, and forbids Palestinians from drilling wells and extracting water from the rich aquifers lying under their feet.

Under the Olso accords, Palestinians are allocated 118 million cubic meters of water from the West Bank aquifers per year (compared to 483 million cubic meters for Israel), which isn't enough for the growing Palestinian population.

Higher prices

Due to the difficulty in bringing water from the filling point, the price of the water is much higher than in cities connected to the water network: a 10 cubic meter tanker from the PWA costs 110 shekels ($29) in Faqua, compared to 40 shekels ($10) for those lucky enough to be connected to a Mekorot pipe. A private tanker bringing water from privately-owned wells in Jenin costs 140 shekels ($36) for the same amount of water, but the water is unregulated and of dubious quality.

Just on the northern edge of the village, Israel's wall zigzags through the land, a stone's throw away from the village's houses. In this area, the concrete wall has been replaced with an electronic fence and a double row of barbed wire on both sides of a road used exclusively by patrolling Israeli

military vehicles. The barbed wire allows the residents of the village to gaze into present-day Israel, but the view is only a sad reminder of the water abundance that Israeli citizens enjoy. Green and yellow fields of crops and cereals stretch across the plain, interspersed by a few hills.

"In the summer, the fields behind the wall are always green," said Tahane Abu Khamis, a mother of three living just by the rows of barbed wire that mark the boundary between Israel and the West Bank. "You can see the sprinklers watering their crops and vegetables: cucumbers, tomatoes, eggplants," she added, in a flat tone. In Faqua, the fertile land remains mostly uncultivated due to the lack of water; crops are grown sporadically during the few winter months that bring occasional rain.

Children ill from dirty water

In order to cope with the lack of water, many households in the village build their own cistern in order to collect rainwater. Abu Khamis's cistern is underground, a few meters away from her home; a small concrete canal runs down a slope, channeling the rainwater to the cistern below. Her family used to boil the rainwater and use it for cooking and drinking, but when her children started to get sick, she decided to buy bottled water instead.

Abu Khamis' unemployed brother, who lives in same house as her, with his own wife and children, still drinks water from the cistern in winter, unable to afford bottled water for his family. His youngest son is sick with diarrhea, and Abu Khamis suspects the water to be the cause.

Yet even during particularly rainy winters, water from the cistern runs out quickly — by the end of April this year, the cistern was already empty.

"We just bought our first tanker this year, but even the water from the private tankers isn't clean, you can see insects inside," Abu Khamis explained. Rather than buying water from the PWA tanker, which is not only cheaper but much cleaner, the village's poorest families are forced to purchase tankers from private sellers, who let them pay late or in several installments.
Abu Khamis's family belongs to this category; her husband, who works as a street cleaner, spends most of his salary on water, electricity and food. Abu Khamis predicts that the water from the tanker will run out in a few weeks and the two households will need to purchase a new one. For the 13 people living in her house, this amounts to a mere 35 liters of unclean water per day per person, at more than three times the rate consumers pay for tap water.

A small victory

And yet Faqua is the only village in the area that has access to Mekorot's clean water — a small victory, and partial at best, according to Dr. Amin Abu Farha, who used to head the village council and struggled to obtain a water connection for the village. "After three years of pressure, we succeeded," he recalled.

"But even after the Joint Water Committee's positive decision, the Israeli authorities did nothing and said there was no water connection. We took them to a location on the green line [the boundary between Israel and the West Bank], and showed them a [Mekorot] pipe, and they said, 'you will have water in a few days,' which made us very hopeful. The Israeli bulldozers were there for three days, but nothing happened. Then they [the Israeli authorities] said that the water from this pipe was for agricultural use only and not for consumption, and that we should get water from another point. Of course, we had no way to verify what they were saying."
A year later, the Palestinian Water Authority agreed to let Faqua use the current filling point outside the village.

Since 1999, the village has been asking for permission from the Israeli authorities to drill a well, but the request is still pending, according to Abu Farha. "This would solve all our problems," he said. The well would have provided water for the ten surrounding villages, and the US Agency for International Development had already agreed to fund the project. But Israel never agreed to the project, instead pledging to provide a certain amount of water from its Mekorot pipe.

Faced with limited amounts of water sold at an expensive rate, the residents of Faqua have become experts at saving water, according to Mohammed Abu Salame, a teacher at the local school. "We are always thinking about how to save water and how to use it efficiently," he said. "For example, I put a bottle of water in the toilet [tank] to reduce the amount of water used. I also put a stopper on the water pipes to reduce the flow."

Abu Salame's family and the two other families living under the same roof as him also rely on private water tankers and rainwater in winter. A rudimentary sand filter in the kitchen tap removes the largest impurities in the water. "People here have a strong immune system," Abu Salame joked.

"If we had a water connection, it would be a different world for us," he said. "It would solve a lot of problems, especially financially."

When asked if he knows how much water Israelis consume, he shook his head. "All I know is one Israeli woman in Bet Shean can consume as much water as the whole village in one day," he replied bitterly.

Alex Abu Ata is a French-Palestinian living working in his hometown of Jerusalem since 2011. He is an advocacy officer for EWASH, a coalition of 30 organizations working in the field of water and sanitation in the West Bank and Gaza.

"Water apartheid leaves Palestinian children ill", 23/05/2012, online at: http://electronicintifada.net/content/water-apartheid-leaves-palestinian-children-ill/11321

BACK TO TOP

❖ Community water saving project to receive cash influx amid huge demand

AMMAN -- A grass-roots project that helps communities adapt to water scarcity while preserving natural resources is set to receive an additional JD1.5 million in funding by July, experts involved in the project said.

Under the Community-Based Initiatives for Water Demand Management Project (CBIWDM), societies across the Kingdom will receive grants from USAID and Mercy Corps, then extend them to citizens as revolving loans to implement water efficiency projects.

The project, implemented by Mercy Corps in cooperation with the Jordan River Foundation and the Royal Scientific Society, was launched in 2006 and concludes next year.

"People are interested in the idea... Societies are not keeping up with requests for revolving loans to implement water projects and there is a waiting list for the coming 10 years," Setta Tutundjian, project management specialist in water resources and environment at USAID, said during a meeting held on Wednesday to review the project's achievements.

Tutundjian highlighted that efforts are under way to secure extra funding for the project in order to meet the rising demand for loans, expecting the funds to be secured by July.

Meanwhile, CBIWDM Project Director Rania Zu'bi reviewed the achievements of the project, noting that it is implemented under three phases which entail revolving loans and capacity-building programmes for 135 societies, communal grants for 30 societies, and integrated water and energy resources management initiatives at the community level.

The revolving loans have thus far benefitted 28,000 people, while 74 projects have been implemented at the community level, including 31 in schools, 18 in mosques and 25 in water springs, according to a statement issued by Mercy Corps.

The projects included rainwater harvesting, maintenance of ancient wells, maintenance of residential networks, installation of drip irrigation systems, maintenance of irrigation channels and water springs, and the reuse of grey water, as well as other water saving and efficiency projects.

"Half of the loans went to building wells for harvesting rainwater from rooftops, while more than 30 per cent went to carrying out maintenance on households' worn-out water pipes," Ministry of Water and Irrigation Secretary General Maysoon Zu'bi said.

She noted that many loans also were taken to implement drip irrigation systems on small farms to improve the efficiency of water use, noting that only 2 per cent of loans were used for grey water treatment projects.

"It is well known that Jordan suffers from an acute water shortage. The water situation is difficult and will become harder in the future, when costly water mega-ventures will be implemented," Zu'bi said on Wednesday.

Given the limited water resources, it is vital to improve the efficiency of water use at the household level and give people the right tools to reduce water consumption, the ministry official stressed.

"Community water saving project to receive cash influx amid huge demand", 24/05/2012, online at: http://uk.zawya.com/story/Jordan_Community_water_saving_project_to_receive_cash_influx_amid_huge_demand-ZAWYA20120524045840/

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Israeli Companies Win Bids For Gaza Reconstruction

According to the Palestine Press News Agency (Palpress) the Palestinian Contractors Union has stated that two Israeli companies have won bids for reconstructing water distilling stations destroyed by Israel during the war on Gaza (December 2008 – January 2009).

The Union said that it is appalled by the fact that Israel, despite the fact that it has imposed a deadly siege on Gaza for more than six years which still continues, and was the cause of this massive destruction in the first place, is now winning bids for reconstructing what it destroyed.

Union Secretary, Osama Kahil, stated that the United Nations Children's Fund (UNICIF) "deprived Palestinian companies from winning these bids and granted them to Israeli companies".

Kahil added that Israeli companies then contacted Gaza-based contractors asking them to carry out these construction projects on their behalf for half of the total fees these companies are receiving.

He further stated that two contractors from Gaza have already completed two water-distilling contracts obtained by Israeli companies, Palpress reported.

The Palestinian Contractors Union strongly denounced these violations, and stated that UNICEF in Jerusalem said that it dealt with Israeli companies on the basis that they are "local companies", thus, "Israeli contractors are regarded as local contractors".

The union said that it had contacted all local contractors in Gaza asking them not to do business with Israeli companies in this way, affirming that violators will be held liable for dealing with Israeli companies that represent the country that caused this massive destruction in the first place.

During the three-week attack on Gaza (December 27th 2008 to January 18th 2009), the Israeli army killed 1419 Palestinians while thousands were wounded and dozens of seriously wounded Palestinians died of their wounds later on. Most of the casualties were civilians, including children, infants, women and elderly, in addition to dozens of casualties among civil defense and First Responders. 13 Israelis, including eight soldiers, were killed during the attack; five of the eight soldiers were killed by friendly fire.

The Israeli military used phosphorous shells against the civilian population, and also bombarded homes, medical centers, UNRWA facilities, infrastructure, schools, and even mosques and educational facilities where hundreds of civilians were taking shelter.

"Israeli Companies Win Bids For Gaza Reconstruction", 24/05/2012, online at: http://www.imemc.org/article/63560

BACK TO TOP

❖ The Israeli Occupation is Responsible for a Water Crisis in Palestinian Territories

At a water conference on Monday, organized by the Technical University of Palestine, the Ministry of Agriculture and the Palestinian Water Authority, Palestinian Prime Minister Salam Fayyad said a strategic vision and a long-term plan was needed to resolve the crisis.

The Conference Chair, Rahil Mahmoud, said that Palestinian farmers should be supported, and that water shortages were a political issue since Israel controls 85% of water resources in the West Bank.

A report by the UN Office for the Coordination of Humanitarian Affairs (OCHA) released in March reveals that Jewish settlers have seized dozens of natural springs in the West Bank, banning the drilling of new wells and restricting access to scarce water resources for Palestinians.

Mr. Katz-Oz, Israel's negotiator on water issues, was quoted, "There is no reason for Palestinians to claim that just because they sit on lands, they have the rights to that water."

When water supplies are low in the summer months the Israeli water company Merkot closes the valves supplying the Palestinian towns so as not to affect the Israeli supplies. The settlements are able to fill their pools and water their gardens while the neighboring Palestinians must limit showering, cooking, and drinking.

Gaza strip relies predominantly on wells that are increasingly being contaminated with salty seawater due to over pumping by Israel. UN scientists estimate that Gaza will have no drinkable water within fifteen years.

Jewish settlers consume 300 liters per capita per day, compared to about 70 liters consumed daily by the Palestinians. Nearly 300,000 Palestinians in the West Bank are threatened by water scarcity, the report added.

Approximately 14,000 people are forced to buy water in tankers, which is water taken from their lands and resold to them at five times the price. They have access to about 30 liters per day, one tenth of the amount consumed by the Israelis.

"The Israeli Occupation is Responsible for a Water Crisis in Palestinian Territories", 22/05/2012, online at: http://english.pnn.ps/index.php/nonviolence/1722-the-israeli-occupation-is-responsible-for-a-water-crisis-in-palestinian-territories

BACK TO TOP

❖ A Fine Brine: New Desalination Technique Yields More Drinkable Water

A new, more energy-efficient seawater distillation membrane is designed to yield greater amounts of potable water, and less briny discharge.

More than a third of the world already suffers from shortages of potable water—with a rise to 50 percent expected by 2025. Desalination of seawater can help coastal communities can address local shortfalls, although the process is costly, and releasing leftover brine back to the ocean has environmental implications. Now a new system promises to produce more drinkable water with less salty effluent.

Kamalesh Sirkar, a New Jersey Institute of Technology (N.J.I.T.) distinguished professor of chemical engineering, says he has devised a direct-contact membrane distillation (DCMD) system that can efficiently wring drinking water out of up to 20 percent-salt-concentrated brine. (After about 25 percent, salt precipitates out of the solution in the membrane distillation system and could damage the membranes, pumps, lines and other components, Sirkar says.)

Normal seawater has a salt concentration of about 3.5 percent, which means the new system can reprocess the same seawater several times. "More water can be recovered with less residue," Sirkar says.

In Sirkar's system, heated seawater flows across a membrane strung with a series of hollow tubes made of a porous, yet hydrophobic, fiber—meaning only water vapor can be osmotically transferred. Cold distillate water runs through each of the tubes in a direction perpendicular to that of the seawater. The temperature difference between the heated seawater and cold distillate water causes vapor to form on the tubes. This vapor diffuses through the pores and condenses again inside the tubes, joining the flow of cold distillate water. The salt cannot penetrate the tubes and is carried away; with each cycle, more fresh water is drawn off, leaving more highly concentrated brine behind.

Sirkar's recently patented system can deliver about 80 liters of drinking water per 100 liters of seawater, he says. A comparable reverse-osmosis system—which relies on pressure to force seawater through a salt-filtering membrane—would reclaim 41 liters from that same amount of saltwater, according to Sirkar.

Membrane distillation's advantages include its ability to produce drinking water with very low salinity. In addition, seawater can be distilled at a range of temperatures—from 30 to 100 degrees Celsius—reducing the amount of heat typically needed for desalination, an energy savings, Sirkar says. Prolonged use may decrease a typical membrane's efficiency, but Sirkar says his system adds an ultrathin layer of a highly porous silicone–fluoropolymer coating to extend membrane lifetime. Fluoropolymer—a polymer that contains fluorine atoms—has a high resistance to the solvents, acids and bases found in ocean water. As for the environmental impact of desalination,

Sirkar says dumping concentrated brine back into the sea creates a "minimal" disturbance to sea life. He adds, "Seawater is a very large volume with enough turbulence to dilute [the brine] very quickly."

That's not to say membrane distillation is without problems. It requires a steady, inexpensive source of heat to prevent the temperatures of the water on either side of the membrane from equalizing, which would impede the vaporization/condensation process. For DCMD to be practical it needs to be easier to use, more cost-effective and able to take advantage of available heat sources, including waste heat produced by places such as shore-based factories and offshore drilling operations, Sirkar says.

Although membranes are getting better, reverse osmosis is more common and has been used in desalination plants since the late 1960s. Recent improvements in reverse-osmosis technology—including more efficient membranes made from carbon nanotubes and energy-recovery devices that boost output while cutting energy consumption and costs—have made it a feasible option for even small communities such as the Sand City, Calif., on the Monterey Peninsula, with a population of less than 350.

Whichever technology is used for desalination, the price tag remains a wild card, dependent on the cost of energy necessary to build and maintain the facility, run the process, and transport seawater in and desalinated water out. A recent study by theWateReuse Association indicates that costs for seawater desalination projects vary widely from about $2 to $12 per 3,785 liters. Smaller capacity units, which produce less than 3.8 million liters daily, are at the higher end of that cost range, in part because they cannot leverage the same economies of scale as larger facilities.

As a result, desalination does not figure prominently in the U.S. Environmental Protection Agency's *National Water Program 2012 Strategy: Response to Climate Change* report, released in March as a draft for public comment. (pdf) The report notes that "desalination is energy intensive and there may be risks and costs associated with disposing of waste brines from the treatment." Still, the agency does acknowledge that rising sea levels over time may increase saltwater intrusion on coastal freshwater aquifers and notes that desalination is one way to ensure those aquifers remain usable.

"A Fine Brine: New Desalination Technique Yields More Drinkable Water", 22/05/2012, online at: http://www.scientificamerican.com/article.cfm?id=desalination-membrane-tech

BACK TO TOP

❖ Feed the world

The CIPA Plasticulture for a Green Planet Conference looks at agricultural plastics for farming.

Agriculturalists worldwide need to capitalize on the increasingly sustainable plastics being developed for farming, industry officials agreed at a conference in Tel Aviv on Tuesday.

This in light of the escalating food supply needs of an exploding population.

The experts spoke at the International CIPA Conference 2012: Plasticulture for a Green Planet, organized by CIPA, the International Committee for Plastics in Agriculture, the 19th such conference held every three years in a different country. With representatives from more than 54 countries, the conference took place on the grounds of the AgriTech Exhibition – the 18th International Agriculture Exhibition and Conference, going on from Tuesday through Thursday at the Tel Aviv Fairgrounds.

"Here in our tiny country, most of which is desert where each drop of water counts and every little piece of fertile land matters, we have succeeded to develop a modern and profitable agriculture," Agriculture Minister Orit Noked said.

This success, she stressed, is in large part due to the added efficiency gained by the use of plastics in irrigation systems, in greenhouses, in netting and other systems. Through such technologies, Israel has been able to "make the desert bloom" and transform it from an arid no-man's land to a "vegetable basket," according to Noked.

Israel's plastic industry began to boom in kibbutzim during the 1960s, and combined with advanced agricultural technologies allowed the country to become a world leader in desert crop cultivation, explained Itzhak Esquira, president of CIPA for the past three years and a member of Israel's Plants Production and Marketing Board.

"Our vision in recent years in protected agriculture is to produce year-round high quality produce based on sustainability without involving any external or fossil energy," Esquira said.

On June 14, the world will converge on Rio De Janeiro to define what exactly sustainable development means going forward, a decision that will apply to agriculture and to many other sectors, said Dr. Kandeh Yumkella, director-general of the United Nations Industrial Development Organization.

"It is obvious that we cannot continue to produce and consume products the way we have been for the past 150 years," Yumkella said.

Last October, the global population reached 7 billion, and in another 40 years, it will jump an additional 2.5 billion. In only 20 years, about 3 billion people will move into middle class, demanding more food, and by 2020 the world will need to increase its food production by 50%, according to Yumkella.

"We face a global challenge of meeting the food needs of this expanding population," he said.

While many important plastic technologies for farming already exist in much of the world, these innovations need to reach developing countries as well, particularly farms in Africa, where the dearth of plastic packaging often leads to crops rotting in the field, according to Yumkella. In those same countries, there are often inadequate processes for recycling, so the plastics that are in use end up remaining on the ground – "everywhere," he added.

Israeli plastic innovations that have proven successful domestically and as exports include plastic nets to protect crops against the infiltration of harmful, disease-causing insects, as well as micropackaging plastic bags for preservation of fruits and vegetables, Noked said.

"All our fields are irrigated through water flowing in plastic pipes," she said.

Attractively colored plastic nets can be used to divert pests, such such as white flies and aphids, away from entering greenhouses, according to Dr. David Ben-Yakir, from the Agricultural Research Center at the Volcani Center.

"Optically, we can manipulate the insect and minimize their entry into the greenhouse," Ben-Yakir said, noting that yellow often seems to be attractive to the pests.

Plastics also help conserve water, both in drip irrigation and by coating reservoirs to retain rainwater, explained Dr. Ana Dotan, president of the Israel Society for Polymers and Plastics.

"With the use of plastics, fruits and vegetables can be grown whatever the season," she said. "Thanks to the use of plastics in agriculture, water can be saved and plants can be planted even in desert areas."

Other important plasticulture innovations worldwide include greenhouse covers that block near-infrared rays and so reduce the temperature in greenhouses, according to Prof. Juan I. Montero, of the Institut de Recerca i Tecnologia Agroalimentària in Spain.

Also instrumental have been anti-drip films, which cause condensation to form a film on the greenhouse covers, rather than dripping down, and allow for the recovery of condensation water when placed on an incline, he said.

While these plastics are critical in the development of agriculture, they must be recycled properly, and when recycling is not possible, biodegradable plastics may increasingly be an option, said Dotan, who was recently part of a team at Shenkar College of Engineering and Design in Ramat Gan that developed a single- season biodegradable irrigation system with the Netafim company.

By using biodegradable films, as well as performing mechanical recycling to produce plastic pelts, agriculturalists will be able to prevent much of their plastic waste from accumulating, Montero said. Meanwhile, burning polyurethane in a controlled way can prove a useful energy source, with a very high heat value.

"Greenhouse production, if properly managed, is not a highly polluting process," he said.

"Feed the world", Sharon Udasin, Jerusalem Post, 21/05/2012, online at:
http://mideastenvironment.apps01.yorku.ca/?p=5022

❖ White gold: Are Egypt's cotton industries beyond salvation?

Egypt's extra-long staple cotton, acclaimed to be the world's finest, has been in a state of rapid decline for the past 20 years. The production of Egyptian cotton is threatened with demise, along with the country's textile industry, which had absorbed domestic cotton production.

Often referred to as "white gold," cotton is no longer the country's chief cash crop, and the textile industry is no longer a leading economic powerhouse.

Since the mid-1800s, "cotton was Egypt's primary cash crop until 2001, but not anymore," said Mohamed Fathy, professor of agriculture at Monufiya University.

"The Egyptian state used to subsidize all the cotton farmers' needs, from A to Z. This included subsidized seeds, fertilizers, pesticides, irrigation and subsidized prices for the purchase of their cotton harvests," he said.

Official and independent statistics, as of 2010–11, indicate that the area of agricultural lands producing cotton in Egypt has decreased to a quarter (or less) of its size in the 1990s. An estimated 2 million feddans were being used for cotton cultivation until around 2001. According to Fathy, in 2011, cotton-growing lands amounted to 310,000 feddans, or just over 3 percent of the nearly 9 million feddans of agricultural land. In the 1960s, more than 4 million, or nearly 67 percent, of 6 million total cultivated feddans were devoted to cotton, according to Fathy.

According to Khaled Badawy, director of the Egyptian Center for Rural Studies, "the state's adoption of [International Monetary Fund] open-market policies in the early 1990s, the subsequent cancellation of protectionist economic policies, the move away from centralized periodic plans for agricultural production, and the lifting of subsidies have all hit Egypt's cotton farmers hard."

Badawy added that the Agriculture Ministry has refrained from buying cotton from local farmers because their product is well above the average global market price. The agricultural specialist added that the fragmentation of land ownership into tiny plots as well as insufficient and inadequate irrigation networks have also contributed to the woes of cotton farmers.

Thousands of farmers, unable to cover the expenses of cultivation, have turned away from cotton in favor of more profitable cash crops, particularly fruits, for both domestic markets and for export.

"Given that the government is no longer buying its cotton at market prices, most Nile Delta farmers have been stockpiling their cotton harvests since last year," said Badawy.

Mohamed al-Sunni, a cotton farmer from Quesna, in the Nile Delta governorate of Monufiya, said "thousands of farmers are stockpiling their cotton because there's nobody willing to buy it."

The elderly farmer explained that thousands of cotton farmers are storing their produce, not only in Monufiya, but in a number of other governorates.

"Just a few years ago, the Agriculture Ministry used to purchase cotton from farmers at market prices," he said. The ministry's local agricultural cooperatives, cotton ginning companies and textile factories also paid market prices.

"Prices have plummeted. So nowadays there are very few people interested in buying our cotton," he said. "It's not like we are withholding our cotton harvest from the government, but the prices we're being offered don't even cover the cost of production."

Sunni said that just last year he sold one qintar (or quintal, about 45 kilograms) of cotton for LE1,850. This year the qintar is worth LE900 to 1,000.

For well over a decade, a flood of cheaper cotton imports from China, India, the US and Sudan have flooded the market — most of these cotton varieties are short- or mid-length staples. The economic policies adopted by the Mubarak regime, most of which still remain in effect, have left Egypt's cotton and textile industries prey to cheap Asian imports at the same time that cotton faces fierce competition from heavily subsidized, large American growers.

Egyptian cotton is valued for its extra-long fibers, which are characterized as being more absorbent, strong and durable. Egyptian cotton can also be spun into lengthy and fine threads, allowing for a greater thread count per centimeter, which produces a finer and softer fabric. However, increased global production of cheaper short and mid-length cottons has driven down prices worldwide. Long and extra-long staples are more expensive, and account for only around 2 percent of global cotton production.

Egypt's textile industries have been drawn into cotton's downward spiral.

"Since many of the existing textile machines are old, and are only designed to process long-staple cottons, these machines cannot manufacture textiles using the shorter cotton fibers, which are the most prevalent," Badawy said. Moreover, the privatizations of textile companies since the 1990s, along with corruption, bankruptcy and the closure and liquidation of factories, have "compounded the cotton crisis since the domestic textile industries are absorbing less cotton from Egyptian farmers."

Badawy argued that "ideally Egypt should undo the steps that led to this crisis, but it's too late to close markets to foreign imports or impose protectionist economic policies, because the Egyptian state is bound to the international trade agreements that it signed and ratified."

As for subsidies, "it would be very difficult to subsidize Egypt's small farmers. Farmers typically own very small plots of land, which would be impractical to subsidize, while millions of others are landless peasants," said Badawy, contrasting the situation here with that of in the US or European Union. "These states spend hundreds of billions of dollars each year subsidizing their farmers. Yet farmers there own large tracts of land, which are typically mechanized.

"Subsidizing Egypt's farmers may be a temporary solution to save the cotton industries — for 10 or 20 years. However, this would impose a heavy burden on the national economy, and is not sustainable in the long term — especially in light of declining cotton prices on the world market."

According to Badawy, the ministries of Agriculture, Trade and Industry, and Manpower have neglected their responsibilities toward the cotton industry, its farmers and workers. The Mubarak regime ignored the demands of tens of millions of small farmers, while "the 25 January revolution has sidelined them. Their problems remain unaddressed by political parties and presidential candidates. Prospects for Egypt's cotton growing industries are not at all rosy. "

Badawy criticized presidential candidates for promising to bolster the agriculture industry with new infrastructure and irrigation systems and improve farm conditions without laying out how they plan to pay for such programs.

"Tens of billions of pounds are required just to begin addressing these basic problems," he said.

Badawy rests his hopes on recently founded farmer unions, rather than politicians. Egypt's first farmers unions, while still in their embryonic stages, are now found in nearly every governorate.

"The former regime chose to move away from cotton production. This was a politicized decision dictated by the IMF and approved by the Mubarak regime," said Independent Farmers' Federation President Abdel Meguid al-Khouly. "The cotton crisis is a very clear reality, not only in Beheira and Monufiya governorates, but in all other cotton-growing governorates, and agricultural lands."

Khouly said that "since last year, cotton farmers have protested, marched and blocked roads across the country in protest against their neglected demands. While farmers' representatives have repeatedly met with Prime Minister Kamal al-Ganzouri, and Essam Sharaf before him, to no avail."

The federation leader claimed that "Egypt is moving away from self-sufficiency in all crops, because there is no centralized agricultural planning. Such planning ended in the early 1990s." He predicted more agricultural and economic troubles if the country continues to follow the trajectory laid out by former rulers.

"Egypt has become a massive import market, we are no longer a production-based economy. We should only import that which we cannot produce domestically." Khouly said, also advocating that the government decrease the tax burden on small farmers and resume subsidies.

Khouly also has little respect for politicians.

"It is almost impossible to identify the allegiances of these [presidential] candidates. What we do know, however, is that they are only looking after personal interests, but not the interests of farmers. This is simply because none of them are farmers."

"White gold: Are Egypt's cotton industries beyond salvation?", Egypt Independent, 21/05/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=5018

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Global Scarcity: Scramble for Dwindling Natural Resources

National security expert Michael Klare believes the struggle for the world's resources will be one of the defining political and environmental realities of the 21st century. In an interview with Yale Environment 360, he discusses the threat this scramble poses to the natural world and what can be done to sustainably meet the resource challenge.

Michael Klare, a professor of peace and world security studies at Hampshire College in Massachusetts, devotes much of his time these days to thinking about the intensifying competition for increasingly scarce natural resources. His most recent book, *The Race for What's Left: The Global Scramble for the World's Last Resources*, describes how the world economy has entered a period of what he calls "tough" extraction for energy, minerals, and other commodities, meaning that the easy-to-get resources have been exploited and a rapidly growing population is now turning to resources in the planet's most remote regions — the Arctic, the deep ocean, and war zones like Afghanistan. The exploitation of "tough" resources, such as "fracking" for natural gas in underground shale formations, carries with it far greater environmental risk, Klare says.

In an interview with *Yale Environment 360*contributor Diane Toomey, Klare discussed China's surging appetite for resources, the growing potential for political and military conflict as commodities become more scarce, and the disturbing trend of the planet's agricultural land being bought by companies and governments seeking to ensure that their people will have enough food in the future. The way to reduce resource conflicts, says Klare, is to find substitute materials and to significantly boost efficiency in a host of realms, most notably energy. Hope for the future, he says, lies with innovative entrepreneurs and, especially, the young. "They all want to be involved in developing solutions," said Klare, "and they have a lot of optimism and enthusiasm for this."

Yale Environment 360: You make the point that when it comes to the age-old competition for raw materials, we're in an unprecedented age. How so?

Michael Klare: I do believe that's the case. Humans have been struggling to gain control of vital resources since the beginning of time, but I think we're in a new era because we're running out of places to go. Humans have constantly moved to new areas, to new continents, when they've run out of things in their home territory. But there aren't any more new continents to go to. We're going now to the last places left on earth that haven't been exploited: the Arctic, the deep oceans, the inner jungles in Africa, Afghanistan. There are very few places left that haven't been fully tapped, so this is humanity's last chance to exploit the earth, and after this there's nowhere else to go.

e360: Natural resource extraction has never been a pretty business when it comes to the environment, but you write that now that the era of easy oil, easy gas, easy minerals and other resources is basically over, and what's left is in deep water, remote or inhospitable climates, or in geological formations that require extraordinary means to get at. So paint me a picture of what extracting these tough resources looks like.

Klare: We're really going to be using very aggressive means of extraction, so the environmental consequences are going to be proportionally greater. For example, to get oil and natural gas out of shale rock, you can't just drill and expect it to come out. It doesn't work that way. You have to smash the rock, you have to produce fractures in the rock, and we use a very aggressive technology to do that —hydraulic fracturing — and the water is brought under tremendous pressure and it's laced with toxic chemicals, and when the water is extracted from these wells it can't be put back into the environment without risk of poisoning water supplies. So there's a tremendous problem of storage, of toxic water supplies, and we really haven't solved that problem.And that's just one example. Drilling in the Arctic presents a tremendous problem because the Arctic, by its very nature, is at the edge of survival and all the species there are living at the edge of survival, so any oil spill could push them over the edge into extinction. So [oil companies] must have on hand all kinds of extra capacity to deal with the possibility of spills, and that's much more difficult to engineer than in the Gulf of Mexico, where there are tens of thousands of boats that you could hire on short notice to bring out skimmers and booms to contain a spill. There's nothing like that in the Arctic. Moreover, if this were to happen in winter, there would be no way to move equipment up there to build a relief drill. Remember, it was a relief drill that closed the Deepwater Horizon spill, but you can't do that in the middle of winter when the Arctic [Ocean] is covered with ice.

e360: Yet despite all that, there's profits to be made.

Klare: There's profits to be made, and this is particularly important to recognize — that this is attractive to the private international oil companies, like Shell, BP, and Exxon Mobil that are going into the Arctic, because they've been pushed out of the Middle East, Venezuela, and Russia by state-owned companies. So there are very few places where they can go and control the whole process of production, from beginning to end, and the Arctic is one of those few areas.There's more to it than just that. We're really at a turning point and I think most people in this country and around the world understand that before too long we're going to have to transition to other types of energy if we're to avoid the catastrophic effects of climate change. But the big oil companies, they only know one business, which is producing oil and natural gas and selling it in their service stations. And so they're determined to maintain their business model as long as possible and they're resisting the transition to alternative fuels.

e360: North America has more than its share of so-called tough oil and gas. That includes the Alberta tar sands and the shale gas fields in the U.S. that are being fracked. As energy extraction heats up in North America, you've written that the U.S. is in danger of becoming "a third-world petro state." What do you mean by that?

Klare: Consider what [happened] in the 1960s and 1970s when U.S. and European oil companies moved into countries like Nigeria and Angola. You had very low government oversight of oil company operations, little or no environmental protection, a lot of corruption, so it was easy to expatriate your profits. You didn't have to worry about labor regulations or labor unions. But now those places in the so-called Third World are becoming much tougher. They're either nationalizing their resources or enforcing their environmental regulations or labor laws. So it's not as profitable as it once was.

Meanwhile, in the United States, there are these formations that were once inaccessible, shale rock in particular. But to gain access to these resources in the United States and Canada it will be necessary to roll back a lot of the environmental protections and the labor and tax laws that were imposed over the past 50 years. So the oil companies and the gas companies really want to turn this country back to what it was before environmentalism became an issue, and make it more like the way the Third World was in the 1950s and 60s, with very lax environmental oversight and labor concerns, so that they can use the very aggressive, environmentally hazardous techniques to extract oil and gas from these tough formations.

e360: What developments can you point to that indicate that the U.S. is on the road to this?

Klare: For example, when the Bush Administration was in office, and Congress was under control of Republicans, the 2005 Energy Policy Act exempted hydrofracking from the Clean Water Act so that oil and gas companies could use hydrofracking with toxic chemicals and were not covered by the protections that all other kinds of industrial activities in the United States are subject to.

e360: Talk about the China-African connection and how it fits into the race for what's left.

Klare: China now is the fastest-growing world economy and it's very manufacturing-oriented, and China is also building cities and infrastructure very rapidly. All of this is incredibly resource-intensive. They need everything: oil, natural gas, iron, copper, more exotic things for the electronics that they build, like chromium, lithium, and palladium. And eventually food, because they're unable to produce all the food they need for their population. So one of the major tasks of the Chinese leadership is to scour the world for all the resources that they need to keep the Chinese economic machine growing, and this will only become a bigger problem the further you look into the future.

To give one example, until relatively recently, 1993, China was self-sufficient in oil production and was until very recently self-sufficient in coal. But now China has to import half of its petroleum and that will increase to three-quarters. It's now importing coal. Now, Africa is one of those areas that the Chinese leadership sees as a prime source of raw materials, and they think they have an advantage there, because of the historic animosity of the former colonies towards the West. They come in and say, "We're going to do things differently. We're not going to plunder your resources the way the imperialists did. We're going to do this in a more cooperative fashion, so turn to us, let us develop your resources, and we'll help develop your country." And they're making a tremendous pitch to extract all of Africa's resources.

e360: And that promise to be the kinder, gentler extractor? What's your take on that?

Klare: Opinions are divided on how realistic this promise that China is making of offering development to Africa is. To what degree is this really just the icing on the cake, when really they are no different from the European imperial powers in their drive to plunder Africa for their own benefit? They are building railroads and roads. But are the roads andrailroads merely to facilitate the shipment of the iron ore and the copper ore to the coast to be put on ships to be carried to China? That's the way it looks to me, more and more. Moreover, typically the Chinese say, "Well, we will build all of these facilities, new ports and railroads." But typically they insist that Chinese state-owned

companies build the railroads, ports, and airports. They bring in Chinese workers who live in self-contained compounds. They don't offer jobs to local people, and so they're creating a lot of resentment to China, just as there was once towards western imperialist exporters.

e360: Minerals, including lithium and platinum, get a lot of attention in your book. These are minerals with industrial, military, and commercial applications. It seems that the difference between easy access minerals and tough access minerals is not the extraction method but the degree of remoteness, military conflict, and regime volatility that companies have to contend with.

Klare: Well, yes, it's a combination of all of those. The good, easy mining ores are largely gone now. So you have two choices. You can use more aggressive means to exploit the same old mines — tearing mountains apart they way they do in Chile and Indonesia for copper, where the mines are so vast you could see them from space, and you're getting less and less desirable ores and so you have to treat them more with arsenic and other poisons. The consequences to the environment are therefore greater. So that's one option. The other options are to go to the Arctic, and they are talking about producing some of these minerals in Greenland. For the first time, they're moving into Nunavut, the native lands in Canada, far above the Arctic Circle, to get iron ore.

And the other possibility is to go to places you stayed away from because they were dangerous, like the Democratic Republic of the Congo, or now Afghanistan. Many people believe that Afghanistan has a tremendous treasure trove of valuable minerals: copper, iron, lithium, rare earths, and if you're prepared to bring in an army to protect them, there's a lot of minerals there.

e360: And then there are the rare earth elements, with names that are difficult to pronounce, like scandium and promethium. Our cell phones and laptops are chock full of some of these substances and demand is expected to skyrocket over the next few years. But right now, China is just about the only country producing them. Is that going to change, and if so, what are the environmental implications?

Klare: Well, the thing about rare earths that I learned is that they're not exactly rare as a percent of the earth's crust, but they're not found in concentrated nodes. They tend to be found with a lot of other things, including typically radioactive materials. So you have to separate them from other minerals you don't want. China has taken over production of most of the rare earths. They have the concentrations and they are willing to overlook the environmental consequences. A lot of this is in inner Mongolia, and they are trying to promote economic development there. And from what I understand, it's resulted in terrible environmental devastation of the surrounding agricultural areas that have been poisoned with the tailings from this rare earth production. But it was not because they had more of the minerals, but because they were willing to overlook the environmental hazards involved. Now they're tightening up on their controls, and so the supply has gotten tighter.

e360: It seems that one could argue that it's not the running out of resources that we have to fear, but rather the environmental cost of obtaining them.

Klare: There are several things happening all at once. There is the future point down the road where things really will be very scarce, and then civilization as we know it will collapse, unless between now and then we develop new ways of living. I'm talking about something that could happenin 2050

or farther down the pike. Oil will run out. But between now and then, we will have other problems. The price of things will rise and that will create everyday hardship in people's lives and we're seeing that today. But we'll also see conflict arising in this race for what's left. We're already seeing signs of that in many places, for example, in the East China Sea and the South China Sea, as China and its neighbors are increasingly using military force to exert their claims over undersea reserves of oil and natural gas. So there will be many consequences to this final stage in humanity's struggle to gain control over vital resources.

"The young know the bad news already and they're determined to do something about it."

e360: There's a relatively new phenomenon in which countries, mainly in the Persian Gulf, are buying up farmland in poor countries to grow crops for consumption at home. Saudi Arabia, for instance, has been buying up land in Sudan and Ethiopia. How have we come to a point where farmland has become a global commodity?

Klare: You know, I can't help but think that there's something very cynical and ugly about all of this, but a lot of the people who are in this business, they talk about Malthus, future population growth, starvation, climate change, all of these things making food the most precious commodity of the future — that whoever possesses land to grow food will be the rich people of the future. That's the pitch that they make to investors, and it is based on the notion that people will be starving and desperate for food. Now, there are a second group of investors, those from Saudi Arabia, United Arab Emirates and so on, who say that we will not be able to feed our future population, and so therefore we will buy farmland in foreign countries to grow food exclusively for our own population, irrespective of the needs of the people who live in the food-growing areas. They'll have to fend for themselves, but we'll provide for our own people. And this, too, derives from very nightmarish scenarios of what we'll see in the future.

e360: You say that to head off the global nightmare for the race for what's left that we'll need to engage in a race to adapt, and that includes finding substitute materials, improving efficiency. When I read this part of your book, I was rather surprised at its optimistic tone. You say you see signs that we're already in the race to adapt. Talk to me about that.

Klare: Being around students, they think they know the bad news already and they're determined to do something about it. They want to be in the solutions business. I think this is a universal phenomenon around the world because I have students in my classes from virtually every continent now, and they all want to be involved in developing solutions, and they have a lot of optimism and enthusiasm for this. So it's partly that energy that I'm feeling from my students and young people about the possibilities of positive change. And then I see that there are entrepreneurs who are coming up with very creative solutions to the problems I describe, who are creating the alternative modes of producing energy and using materials more efficiently. And I think that with time they will gain momentum.

"Global Scarcity: Scramble for Dwindling Natural Resources", 23/05/2012, online at: http://e360.yale.edu/feature/global_scarcity_scramble_for_dwindling_natural_resources/2531/?utm_source=twitter.com&utm_medium=worldresources&utm_campaign=socialmedia

❖ Late for School After a Long Journey for a Drop to Drink

ZINDER, Niger — Wars keep children out of school. So does sickness. But in Niger, a sun-baked land where drought occurs with alarming frequency, a major impediment to education is thirst and the long trek required to quench it.

The school day had already begun on a recent morning as a procession of small children on donkeys, school-age all, made their way over a sandy field, joining other youths gathered with their animals around deep holes in the ground.

As low rainfall has dried up the countryside, the search for water has become ever more difficult. The job of securing water frequently falls to Niger's children, some as young as 10 or 11. They ride donkeyback as much as five miles out of town, with giant plastic jerrycans, half as high as the children themselves, strapped to the animals' sides. The more they work, the emptier become the classrooms of eastern Niger.

"It is my parents who send me," said Sani Abdu, 11, a boy in a blue T-shirt, squinting through one eye in the bright morning sun. Swelling had closed the other. It would be 10 a.m. before he made it from the muddy wells in Baban Tapki, at the edge of Zinder, to his rural school, two hours late. He envied those not burdened with "water duty," or "corvée de l'eau," as it is referred to here — the trek, and then the lowering of bowls or buckets, by rope, into the deep wells. It is laborious and treacherous, with children sometimes losing their footing and falling in.

"The others are more advanced than me, but I have to get the water," Sani said of his classmates who escape the chore and get to school on time.

Niger is next to last on the United Nations' Human Development Index, and is subject to droughts and near famines. In the last decade alone, there have been three serious food shortages related to low rainfall and insect attacks, and this year perhaps a third of the population is facing hunger.

A rainfall deficit last year — the short rainy season ended early, and rains were rare and irregular — left the land without the surface ponds that many of Niger's 17 million people, most subsistence farmers, depend on. Nearly a third of the population now faces a food deficit. But more immediately, the people must have water, and with good wells ever harder to find, the quest for it falls to the next generation.

In rural districts around Zinder, Niger's second-largest city, officials say, a third to one-half of students have abandoned classrooms, which are no more than simple huts of dried reeds planted in

the sand. “It’s the water that is keeping them out of school,” said Salissou Sahirou, an education official in Baban Tapki.

“All the schools here are paralyzed,” said Sylvain Musafiri, a top United Nations official in Zinder.

In makeshift classrooms sticking up from desert scrub in Garin Gona, nearly all the children raised their hands when their teacher asked how many had come in late because of water duty.

Oumaraou Lawali, 11, drawing his eyes wide open, explained how he had awakened at 4:30 a.m. to walk three miles for water; later, after class, he would repeat the trip. “In the evenings, I’m tired,” he said. “Worn out.”

Often, said the teacher, Maman Boukari, the children fall asleep before his eyes.

The search for water is a constant, in good years and bad, since 80 percent of the population has no running water. But this year, “it’s worse, and it’s not getting any better,” said another teacher, Barki Hima. “It’s the sun, always the sun. This year, really, it’s difficult. The children are coming in two hours late.”

In Zinder, a dusty metropolis of around 350,000 near the Nigerian border, there were riots this spring over the lack of water. Angry residents have burned tires and erected barricades of rocks in the sandy streets of this historic city, once the capital of both a powerful Hausa sultanate and later of the French colony that became Niger. In late March, the offices of the state water company were attacked.

At street corners with public fountains, the water is bottled and sold, causing the fountains to run as dry as everyplace else. On a recent afternoon, men and boys were collecting water from a filthy rainwater lake at the edge of the city.

Everybody worries about the lack of water, but it is the children, principally girls, tasked with searching for it. The poorest of the poor send their children out. So do their leaders, who are thirsty too and desperate every day for water.

“It’s my children who get the water,” said Titi Malla Adamou, the village chief of Tsoungounia, where camels bearing jerrycans roam the village’s edge amid packs of donkeys ridden by children. “This is a problem for everybody, from the smallest to the biggest.”

Few question this system in a country with one of the world’s highest birthrates and one of the fastest rates of population growth, where women have around seven children on average.

With so much scarcity in Niger, two-thirds of which sits in the Sahara, there is an abundance of children. "I had to send my own children out to look for water," said Ado Louché, a top school official for the Zinder region.

With more and more children on the hunt for water, their futures grow more precarious. After one year of schooling in a village outside Zinder, Zuero Mutari, 13, had to quit nine years ago during a previous drought to fetch water. School "interests me, because I see others go," said Zuero, who drives a cattle cart loaded with jerrycans and spends her day hunting for water.

At the Baban Tapki wells, three little girls, sisters, said none of them had ever attended school. "We are signed up, but we don't go," said Maria Bugagi, 12, next to her younger sisters Balik and Rahila. "We have to look for water." The long searches for water bring on the fear of sexual assault.

"To have water, we must mobilize our children," Yunfa Adaga said, lamenting the practice. "Our children are late for school. So, they are not learning." Mr. Adaga used to manage a public fountain in Zinder. But it has run dry.

"We live and sleep with this problem of water," he said. "We are racked by it."

"Late for School After a Long Journey for a Drop to Drink", 21/05/2012, online at:
http://www.nytimes.com/2012/05/22/world/africa/niger-children-miss-school-to-search-for-water.html?_r=2&pagewanted=all

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ UNESCO Heads East Africa Water Search

NAIROBI - The United Nations Educational, Scientific and Cultural Organization, (UNESCO) and officials from Kenya, Ethiopia, and Somalia Tuesday launched a regional initiative to identify and improve groundwater resources in the region.

UNESCO's "Strengthening Capacity to Combat Drought and Famine in the Horn of Africa" project aims to ease the water and food shortages faced by some nine million people who are still struggling to recover from last year's drought and famine, the worst in 60 years.

It aims to do so by identifying, assessing and developing groundwater resources in the three countries using leading-edge technologies.

"So we have satellites in orbit right now that can let us know what is going on 20 meters even below the surface of the earth. We can see buried drainage systems [and] rivers, we can see structures, fractures that are there, which is an indication for us where is the water," explained Saud Amer, a water resource specialist with the U.S. Geological Survey.

He says scientists cannot see the actual aquifer from the satellite images, but, through remote sensing, can infer the location of underground water.

There may be a lot of water. John Rao Nyaoro, director of water resources in the Kenyan government's Ministry of Water and Irrigation, estimates that his country has 60 billion cubic meters of underground water.

"What we want is a confirmatory test through this kind of project that will be able to tell us here is where that groundwater is seated, at this depth. Once we have known, we have the technology to exploit that groundwater," Nyaoro said.

Ethiopia's director of groundwater, Tesfaye Tadesse, estimates that Ethiopia may have at least 40 billion cubic meters of underground water, or even double that, especially in the highlands and the central part of the country.

He says his country has poor drilling facilities and little know-how on locating groundwater sources. But Tadesse has high hopes for the UNESCO initiative.

"Now we want to use this advanced technology - the remote sensing technology - to look for [water in] the remote parts of Ethiopia, where access is very limited," Tadesse explained. "You can very easily gather information without the need to go into the field."

The region's ecosystems are all inter-connected stressed consultant Yassin Salah Ali.

"If, for instance, drought strikes in Ethiopia, the drought in Somalia will be more severe because Ethiopia is upstream. All the water in Somalia originated from the Ethiopian highlands," Ali said.

The U.S. Geological Survey's Amer warned that the groundwater needs to be managed sustainably so as to avoid future droughts and the resulting catastrophes.

"UNESCO Heads East Africa Water Search", 22/05/2012, online at: http://www.voanews.com/content/unesco-heads-east-africa-water-search/920008.html?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=3b1887e99d-RSS_EMAIL_CAMPAIGN&utm_medium=email

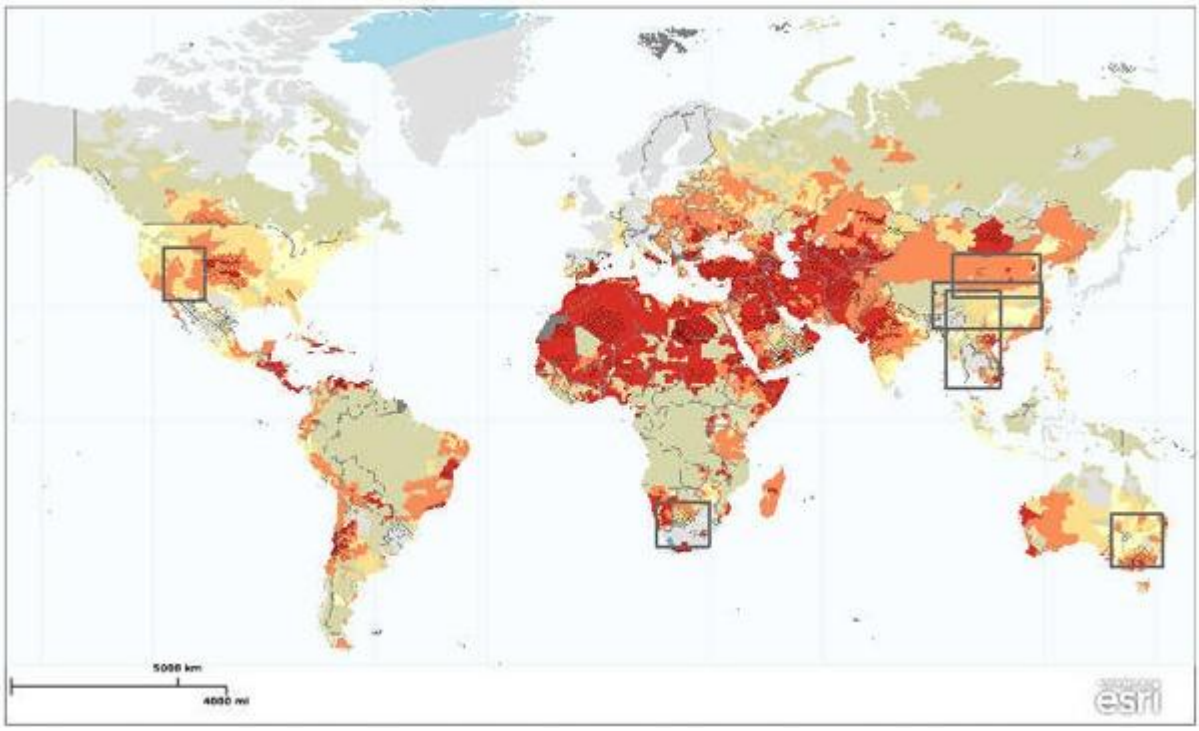
BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Mapping Global Water Stress

Water scarcity is likely to be one of the great problems facing the planet this century. Various risk factors contribute to the scarcity of clean water. A new mapping tool from the World Resources Institute visualizes how those risk factors can combine to create large problems, or how conditions can be improved to reduce the potential for water shortages between now and 2095.

The Water Risk Atlas shows how variable environmental conditions, human activities and regulatory environments affect the stability of water sources all over the world. One-year and three-year socioeconomic droughts can be displayed, as can baseline water stress, seasonal variability, inter-annual variability, and flood frequency. The tool also shows projected water stress levels for the years 2025, 2050 and 2095, under three different climate change scenarios from the Intergovernmental Panel on Climate Change.



The year 2095, for example, is not looking to great for a lot of places. In the most pessimistic of those scenarios, A2, some pretty extreme stress rates can be seen in the Ogallala Aquifer area in the central U.S., as well as Central America, most of northern Africa, Eastern Europe, and the Middle East.

A cool feature zooms in to examine specific water basins, though only two are currently available. The tool's variable weighting system allows users to see how different environmental and use conditions would affect water risk in specific sections of the basin. Users can change weights to see how a higher or lower seasonal variability would affect overall water risk, or what impact a reduction in upstream storage would have. The map even displays how increased water monitoring and media

attention could affect water risk in different parts of the basin. The site will soon include four additional basins for specific coverage.

While the data isn't complete, the mapping tool offers a detailed and disturbing look at the water scarcity issues that lay not too far ahead.

"Mapping Global Water Stress", 21/05/2012, online at:
http://www.theatlanticcities.com/technology/2012/05/mapping-global-water-stress/2054/

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ E&Y releases detailed report on water usage in India

KOLKATA: Reforms in water policy and pricing, sustainability in industrial water use, improvement in performance of utilities and mobilization of the private sector have the potential to address water-related challenges, a detailed report on use of water by Ernst & Young has indicated.

The report titled 'Riding the Wave' was released by Suresh Prabhu, global ambassador of Global Water Partnership at a conference in Mumbai on Wednesday.

The survey has also pointed out that Kolkata has the weakest 'working ratio' in performance of water utilities followed by Jaipur and Delhi. The working ratio assesses performance of water utilities in terms of operational efficiencies, financial health and stability.

However, cities like Mumbai, Chennai and Bengaluru have healthier 'working ratios' indicating better performance of water utilities. Key highlights of the report suggest more than 60% of the households in major Indian cities are water-deficient and that industrial water consumption to increase four-fold by 2050. It also says distribution losses due to leakage in water supply are as high as 35%-50%.

Against this backdrop, arresting distribution leakage losses by an average of 10% across India will reduce the production cost of equivalent water supply by Rs 5.5 billion the report says.

India's growing population, coupled with service inefficiencies on the supply side, has resulted in a steady decline in per capita availability of water in the country, which is currently estimated to be in the water-stressed range.

It is projected that this will drop by more than 50% to water scarcity by 2050. Additionally, the quality of water in many parts of the country indicates high level of organic and bacterial contamination in surface water and of pollutants such as fluoride, nitrate and arsenic in ground water.

The above factors spell the urgent need of an effective water management system that will not just solve our current water problems but also have a solution for the fulfillment of future demand. Chaitanya Kalia, Partner - Advisory Services (Climate Change & Sustainability), Ernst & Young said: "One of the factors responsible for water scarcity in major Indian cities is the absence of sewage treatment capacities, which are as low as 30% of the total waste-water generated. This significantly increases the quantity of non-utilizable water. To effectively address water scarcity issues in India, stakeholders need to shift to and drive new paradigms of sustainable water resource management."

The report has recommended development of an effective water management strategy. With India facing increasing water scarcity issues and challenges today, there is a need to adopt water management approaches that are specific to the regional context and inclusive of all stakeholders, ie, approaches that are based on the principles of Integrated Water Resource Management (IWRM).

There is also a need to bring about reforms in water pricing with the aim to maximize the efficiency of water usage. Such reforms require a shift towards market-based instruments such as water trading, recycled water certificates and designing of effective water tariffs. It also says private sector is critical for the transformation of water usage in a country.

"E&Y releases detailed report on water usage in India", 23/05/2012, online at:
http://economictimes.indiatimes.com/news/economy/indicators/ey-releases-detailed-report-on-water-usage-in-india/articleshow/13411014.cms?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=b5caa955b9-RSS_EMAIL_CAMPAIGN&utm_medium=email

BACK TO TOP

❖ Mamata inaugrates Ganges riverfront Project

Kolkata, May 24 (IANS) West Bengal Chief Minister Mamata Banerjee Thursday inaugurated the first phase of Riverfront Beautification Project along the Ganges, constructed on the lines of Thames riverfront in London.

The beautification of 1.5 km stretch along the river from Princep Ghat to Baje Kadamtala was done at a cost of Rs. 6.50 crore by the Kolkata Municipal Corporation.

Banerjee had promised ahead of the West Bengal state assembly elections last year that if voted to power, she would transform Kolkata into London.

The pavements along the riverfront have been refurbished with marble slabs, anbd aesthetically and brightly lit roadside gardens with music playing in them have sprung up, alongside pavements for walkers.

Victorian era cast iron benches and iron railings have also come up, with fountains adding to the grandeur.

"The Kolkata Municipal Corporation with the help of the state government has done a tremendous job. We had just started this work for the beautification of the Ganga Riverfront seven to eight months back. It is the duty of every citizen to maintain the beauty of the city," said Banerjee, while addressing the inaugural programme.

"I had always believed that we can decorate and beautify Kolkata just like London," she said.

Banerjee claimed that beautification of the rest of 25 kilometres along the riverfront as per the project could not be completed due to objections raised by the Indian Army.

"We are yet to receive the permission from the Army as they have raised some objections. I would request the defence ministry to look into the matter so that we can get the permission as early as possible and start the work for beautification," said Banerjee.

The agency RITES (Rail India Technical and Economic Services) was roped in by the state government to prepare the master plan on river front beautification and its uses.

A police camp will also come up in the area to maintain proper law and order in the area as the area will remain open till midnight.

Banerjee also said that after the completion of entire beautification project and the inauguration of 'Kolkata Eye' - similarly like the famous 'London Eye' - the place will attract lots of foreign tourists.

"Mamata inaugrates Ganges riverfront Project", 24/05/2012, online at:
http://www.newstrackindia.com/newsdetails/2012/05/24/442--Mamata-inaugrates-Ganges-riverfront-project-.html

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Team Anna support to anti-dam protests in Assam

New Delhi: Team Anna on Monday came out in support of anti-dam protests in Assam led by one of its members Akhil Gogoi and asked the government to accept the demands of the protestors. In a statement, Team Anna said the construction of dams in Arunachal Pradesh be stopped "as people of Assam cutting across their economic background have been opposing it".

They said the construction activities should stop till an agreement is reached with the people living in the downstream.

They also demanded the alleged police action against protestors be stopped and all those detained released unconditionally.

Gogoi, a Team Anna Core Committee member and general secretary of Krishak Mukti Sangram Samiti (KMSS), is on an indefinite fast along with 30 others since last Saturday as part of anti-dam protests.

Gogoi alleged "police atrocities" have increased and that is why he is sitting on an indefinite fast to press for their demands like release all the detained activists unconditionally and stopping of police attrocities, a statement said. "India Against Corruption believes that the demands made by Mr. Gogoi must be implemented with immediate effect. IAC urges the government to take immediate steps in this regards. We stand with the activists led by Gogoi in the struggle for betterment of the people in the North East," it said.

"Team Anna support to anti-dam protests in Assam", 21/05/2012, online at: http://zeenews.india.com/news/assam/team-anna-support-to-anti-dam-protests-in-assam_776838.html

BACK TO TOP

❖ AIADMK raises issue of check dams in Lok Sabha

The All India Anna Dravida Munnetra Kazhagam (AIADMK) has urged the Centre to direct the Karnataka government to drop its proposal for constructing check dams across the Thenpennai, which would affect irrigation and drinking water supply in five districts of Tamil Nadu.

Raising the issue during the zero hour in the Lok Sabha on Monday, AIADMK member from Pollachi K. Sugumar said that Karnataka was also trying to divert the flow of the river to its territory depriving of the benefit to Tamil Nadu. The construction of check dams and diversion of the Thenpennai water by the Karnataka government would affect five districts in Tamil Nadu.

Karnataka had not communicated the proposal to Tamil Nadu and had not sought its consent. "Whether it is the Cauvery or Thenpennai, Karnataka has been behaving undemocratically without looking into the problem of other (water) sharing State," he said.

"AIADMK raises issue of check dams in Lok Sabha", 22/05/2012, online at: http://www.thehindu.com/news/states/tamil-nadu/article3443208.ece

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Grand debate on Kalabagh Dam: Govt silence on Kalabagh Dam causing Rs 132bn annual loss

LAHORE: Due to the government's silence over Kalabagh Dam, Pakistan is suffering a loss of Rs 132 billion annually. An early construction of the dam is inevitable for survival of Pakistan because if the government fails to take any practical steps poverty and hunger will be the endless fate that may lead the country to irrecoverable disaster.

These views were expressed by speakers of a Grand Debate on Kalabagh Dam here on Monday. The event was arranged by the Lahore Chamber of Commerce and Industry (LCCI) here at the chamber. Former Khyber Pakhtunkhwa (KP) Chief Minister Shamsul Mulk, LCCI President Irfan Qaiser Sheikh, Punjab Board of Investment and Trade (PBIT) Vice Chairman Dr Miftah Ismail, former LCCI president Tariq Hameed, Pakistan Engineers Forum's Ghalib Atta, LCCI Senior Vice President Kashif Younis Meher, former provincial minister Mumtaz Khan Manais, PBIT Vice Chairman Miftah Ismail, Salman Najib and former LCCI senior vice president Engineer Sohail Lashari said that all those who were opposing the Kalabagh Dam were enemies of this country as they were playing with the country's future.

The speakers said that only because of the government's silence over the Kalabagh Dam, the country is suffering a loss of Rs 132 billion annually. This amount could be saved by initiating construction of Kalabagh Dam. KP chief minister said that there is no threat to Nowshehra city as it is 150 feet above the water level. He said that it was very unfortunate that the decision markers in this country had nothing to lose rather they continue to enjoy all perks under the sky even if they make a wrong decision, it's the masses who suffer. There is no electricity, but the politicians and the top bureaucrats all are getting it free of cost.

He said that Kalabagh Dam, was not only beneficial to Punjab alone but it would be more helpful in erasing poverty from KP as it would irrigate 800,000 acres of cultivable land that is located 100-150 feet above the Indus River level in the province. He said this land could only be brought under cultivation if the river level is raised that is only possible if Kalabagh Dam is built. He said the other alternative is to pump the water, which is very costly. The creditable studies have indicated that pumping water for potential cultivable land would cost farmers Rs 5,000 per acre per year while canal water after construction of Kalabagh Dam would cost only Rs 400 per acre per year.

He said that the politicians opposing the construction of the dam are in fact enemies of the people of the province. He said historical data indicates that during past 75 years average 146 million acres of water is available per year in Indus River. He said the Kalabagh Dam issue has been so much politicised that a consensus would not be possible. The political leadership, he added is manipulating the issue for their advantage. He said civil society would have to play a crucial role in creating a larger consensus as new large water reservoirs would benefit every Pakistani.

In his opening remarks, the LCCI president said that a further delay in gathering a consensus from all stakeholders on the construction of unduly politicised Kalabagh Dam will cost this country and its coming generations very dearly.

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

Sheikh said that everyone knows that the existing dams are constantly silting up leaving ever-decreasing capacity to store water. The construction of Kalabagh Dam along with other new dams is desperately needed to store adequate water. According to a conservative estimate about 30 million acres feet of water is being wasted into the sea because the country has no big water reservoirs to store it.

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

He said that another significant aspect connected with the construction of Kalabagh Dam is the surety of sufficient amount of electricity at comparatively much cheaper price. The country's dependence on power generated through thermal sources is costing us way too much causing to face insurmountable challenges to remain competitive both in national and international markets.

Another significant aspect connected with the construction of Kalabagh Dam is the surety of sufficient amount of greener and cheaper electricity. Electricity generation through thermal sources is estimated to cost almost Rs 16 per unit whereas the same can be produced at Rs 2.5 to Rs 3 through Hydel.

He said that the present scenario leads to import oil worth over $12 billion a year, which is costing us dearly while causing to face insurmountable challenges to remain competitive both in national and international markets.

So far Punjab Assembly has neither passed any resolution in favour of Kalabagh Dam nor against it whereas other three provincial assemblies have opposed its construction.

"Grand debate on Kalabagh Dam: Govt silence on Kalabagh Dam causing Rs 132bn annual loss", Shabbir Sarwar, 22/05/2012, online at: http://www.dailytimes.com.pk/default.asp?page=2012\05\22\story_22-5-2012_pg5_17

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ **LAHORE, May 21: Speakers at a debate here on Monday called for early construction of Kalabagh Dam and described the water reservoir as a must for Pakistan's survival.**

They said poverty and hunger would be country's fate if the government failed to take practical steps on the dam.

The debate was arranged by the Lahore Chamber of Commerce and Industry. Former Khyber-Pakhtunkhwa chief minister Shamsul Mulk, LCCI president Irfan Qaiser Sheikh, Punjab Board of Investment and Trade vice-chairman Dr Miftah Ismail, former LCCI president Tariq Hameed, Pakistan Engineers Forum representative Ghalib Atta, LCCI senior vice-president Kashif Younis, former provincial minister Mumtaz Khan Manais, Salman Najib and former LCCI senior vice-president Sohail Lashari gave their input on the issue.

Shamsul Mulk said all those opposing Kalabagh Dam were enemies of the country, as they were playing with its future. He said
government's silence on the dam was causing the country a loss of Rs132 billion annually. "The dam will not be a threat to Nowshehra because the city is 150 foot above the water level. Decision makers in this country have nothing to lose, as they continue to enjoy all perks and privileges. There is no electricity, but politicians and top bureaucrats are getting it free of cost," he said.

He said the dam would not benefit Punjab alone, it would help eradicate poverty from Khyber-Pakhtunkhwa by irrigating 800,000 acre cultivable land located 100-150 feet above the River Indus level. He said this land could be made cultivable by raising the river level and it was only possible if Kalabagh Dam was built. He said the other alternative was to pump river water to this land, but it would cost farmers Rs5,000 per acre. On the other hand, availability of canal water after construction of Kalabagh Dam would cost farmers Rs400 per acre per year.

"Data shows that 146 million acre foot water is available in the River Indus every year on average," he said.

Sheikh said further delay in evolving consensus on the dam would cost the country and its coming generations dearly. He said stakeholders should show maturity on Kalabagh Dam issue. He said unlike Pakistan India was building dams at every possible site. "It has left us decades behind and the future does not promise anything good either," he added.

"According to a conservative estimate, about 30 million acre foot water is being wasted into the sea because of absence of big water reservoirs. An opinion gained widespread support that recent floods in Pakistan that caused more than $45 billion could have been averted if big dams were in place," he said.

He said Kalabagh Dam would guarantee sufficient and cheap electricity. He said thermal power cost Rs16 per unit, whereas hydel power cost Rs2.5 to Rs3 per unit. He said presently oil worth $12 billion was being imported every year.

Lashari presented a joint resolution on Kalabagh Dam that was unanimously passed by the house. The resolution called for early construction of the dam in the larger national interest.

"LAHORE, May 21: Speakers at a debate here on Monday called for early construction of Kalabagh Dam and described the water reservoir as a must for Pakistan's survival.", 22/05/2012, online at: http://dawn.com/2012/05/22/construction-of-kalabagh-dam-seen-as-inevitable/

BACK TO TOP

❖ Asian cities develop new indicators for 'climate resilience'

NEW DELHI, May 23 (AlertNet) - Ten Asian cities prone to floods, droughts or soaring temperatures are developing a set of key indicators to assess their vulnerability to the effects of climate change and improve urban planning to boost resilience.

Municipalities and environmental groups in India, Indonesia, Thailand and Vietnam will analyse indicators such as capacity of their water supply systems, incidence of waterlogging and rainfall projections, to provide the first ever climate change-specific urban development data.

The project, run by the Asian Cities Climate Change Resilience Network (ACCCRN), aims to mainstream such indicators into the cities' overall development strategy, putting climate change impact at the forefront of urban planning as rapid urbanisation takes effect.

"From this year onwards, these pilot cities in Asia will be demonstrating the practical value of these indicators in improving the climate resilience of these cities," said Stephen Tyler, senior associate at the U.S.-based Institute for Social Change and Environmental Transition, a partner organisation working on the project.

"Once that happens, they can serve as models for other cities in these countries and elsewhere to adopt."

The cities include India's flood-prone Surat in the west, Gorakhpur in the north, as well as centrally located Indore, which suffers water scarcity during its scorching summer season.

Indonesia's Bandar Lampung and Semarang, Thailand's Chiang Rai and Hat Yai and Vietnam's Can Tho, Dan Nang and Quy Nhom are also part of the project, funded by the Rockefeller Foundation.

URBANISING INDIA

Experts say better urban planning, taking into account climate change, is essential as more people move to cities.

In India, urbanisation sees millions of people migrating from rural areas to towns every year, resulting in higher concentrations of people living in smaller spaces.

Currently, around 380 million - around a third of Indians - live in urban areas, but this is projected to increase to 600 million by 2031, say government officials.

In the city of Gorakhpur in Uttar Pradesh state, inhabitants witness erratic weather, including increasingly intense rainfall over short periods of time.

The rain, combined with mountain runoff from nearby Nepal, which is also seeing heavier-than-usual rains, inundates the city as well as villages in the area, often resulting in displacement, damaged homes and crop losses of poor farmers.

"In one of the wards that we are working in, the idea is to help develop a drainage system that is climate resilient," said Shiraz Wajih, president of the Gorakhpur Environmental Action Group, which is part of ACCCRN.

"So we are collecting data on climate projections and on that basis the city's drainage system has to be made."

"Asian cities develop new indicators for 'climate resilience'", 23/05/2012, online at: http://www.trust.org/alertnet/news/asian-cities-develop-new-indicators-for-climate-resilience/?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=f9665eeb2e-RSS_EMAIL_CAMPAIGN&utm_medium=email

BACK TO TOP

❖ Can China Cope with Its Water Crisis?

Peking University, May 21, 2012: A leading international groundwater expert, Professor Zheng Chunmiao of Peking University (PKU) gave an invited presentation to 20 former heads of states and governments at the 30th annual planetary meeting of the InterAction Council held on May 10-12, 2012 in Tianjin, China.

The InterAction Council was established in 1983 as an independent international organization to mobilize the experience, energy and international contacts of a group of statesmen who have held the highest office in their own countries. Council members jointly develop recommendations and practical solutions for the political, economic and social problems confronting humanity. Current council members include former US President Bill Clinton, former Prime Minister of Canada Jean Chrétien, former Chancellor of Austria Franz Vranitzky, former President of South Africa Nelson Mandela, and former Chief Executive of the Hong Kong Special Administrative Region Tung Chee-hwa.

The Council selects specific issues and develops proposals for action from the most urgent and important areas and communicates these proposals directly to government leaders, other national decision-makers, heads of international organizations and influential individuals around the world.

The four topics of the 2012 annual meeting are "Present State of the World", "Global Financial Crisis", "Global Security Imperatives" and "Global Water Crisis". There are three experts who were invited to the meeting. The Other two presenters were Dr. Henry Vaux, Jr., Chair of Rosenberg International Forum on Water Policy from the United States, and Mr. MoneefZou'bi, Director General of Islamic World Academy of Sciences from Jordan.

In his presentation entitled "Can China Cope with Its Water Crisis?", Zheng mentioned that the water resource per capita in China is only one fourth of the world's average, placing China about 120th among all countries. Because China's water resources are distributed very unevenly in both space and time, many parts of north and west China suffer from far more severe water scarcity. For example, in the North China Plain, the water resource per capita is actually less than 1/20th of the world's average. In addition to water shortage, other water related environmental problems exist, including water quality deterioration, river dry-up, groundwater depletion, and land subsidence induced by groundwater overdraft.

Formidable challenges often come with great opportunities. Zheng described some of these

opportunities, including the designation of water and energy as the top two national priorities by the Chinese government and the anticipated investment of one trillion RMB into the Chinese water services market over 2009-2014.

Finally, Zheng discussed some of the measures being implemented or considered to combat water scarcity, including water conservation, increased water use efficiency, rainwater harvesting, desalination, water price reform and transfer.

"Can China Cope with Its Water Crisis?", 21/05/2012, online at:
http://english.pku.edu.cn/News_Events/News/Global/9353.htm

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Govt's assurance against Chinese dam plan not convincing

The Indian government recently confirmed that there were no signs of any Chinese effort to divert water from the Brahmaputra River, the lifeline of the country's northeast and country like Bangladesh. Water Resources Minister Pawan Kumar Bansal said in the Rajya Sabha that they did not notice any alarming activity from the Chinese side and that the neigbouring country has always assured India about taking responsible action.

It is also learnt that various agencies of the Indian government, including the National Remote Sensing Centre and National Technical Research Organisation, are constantly monitoring tributaries on the Chinese side. Bansal said the Chinese have plans to take up various river projetcs but they are mostly based on the tributaries of Brahmaputra.

Few months back, the Minister of State for Water Resources, Vincent H Pala also said that there was no evidence of the Brahmaputra dying up in the Arunachal Pradesh owing to any Chinese designs.

The Indian ministers' words might be a temporary relief, but New Delhi knows very well that the gigantic northern neighbour is not an easy customer to handle. India has mostly been at the receiving end whenever it made any dealings with China and the fear psychosis is here to stay.

As per the media reports, the Chinese government started construction along the river at Medog in Tibet, just about 30 kilometres north of the Indian border. Reports also said that China was aiming to divert 200 billion cubic metres of water from the river from south to north to quench thirst of several of its cities in the region, including Shaanxi, Beijing, Hebel and Tianjin.

It was speculated that China was working on a hydro-power project worth $80 billion, which would generate 40,000 megawatts of power. It would also build additional dams to divert water from several rivers originating in the Tibetan plateau and feed various south Asian countries.

India's worry was further increased when in February this year, the Chinese state-run news agencyXinhua reported that the dam would be partially completed in 2012 and water supply would start next year.

A water official at Shandog, where much of the eastern route of the project is based, said that the whole route would start functioning in 2013 while more water supply units be made effective by 2014-15. The project saw displacement of nearly five lakh people and the figure would shoot up further. Work on the western route was still to begin.

Chinese authorities, however, rubbished the idea of diverting water from the Brahmaputra. The Vice Minister of Water of the country had said last year that they were aware about the technical difficulties, environmental consequences and bilateral relations and hence would not do anything which proves harmful for other nations.

This, however, is in sharp contradiction to China's contemplating a plan in June last year to divert water from the Brahmaputra to feed its arid parts.

Soon after the Chinese revealed their plan, India's Foreign Minister S M Krishna said China was indeed eresting a dam at Zangmu, in the middle reaches of Yarlung Tsango (as Brahmaputra is known in Tibet) but it is a 'run of the river' project and would not affect India's interest (China completed work on the 510 MW hydro-power station project on the Brahmaputra). He also advised Assam and Arunachal Pradesh to harness the water of Brahmaputra to the maximum.

Krishna's words, however, allayed the fears little. Leaders in northeastern states have voiced concern against building the dam, saying it would be disastrous for the environment and economy for the entire region. Indian Prime Minister Manmohan Singh, too, had reiterated Krishna's claims that there was no threat from China.

The Arunachal Pradesh government claimed in March that flow of the Brahmaputra was suddenly found to have almost dried up in one of the age-old towns in the state.

South Asia, in recent years, has evolved into a major centre of water rivalry, thanks to abundant supply of the crucial resource. We see not only nations lock horns time and again over sharing of water, but even two states within a nation emerging party to major water disputes.

In case of water conflict, geography is a major deciding factor. For, states which are located in upstream areas, have the 'capacity' to disrupt water flow to the downstream and hence, choke the rival. When it comes to Pakistan (read Indus) or Bangladesh (read Teesta), it is India's turn to call the shots mostly but when the opposition is China, the game reverses. India also has disputes with Nepal over the Mahakali River.

From the above, we can thus arrive at a more strategic question. In an era when resources are fast turning scarce, competition for alternative sources is intensifying. China today badly needs secure water resource to meet its huge demand. It is one of the reason, some say, that China has adopted a strict and stubborn policy vis-a-vis Tibet, where a number of Asian rivers originate.

Demand for hydro-power as an alternative to exhaustible resources has also pushed the Chinese to race for more and more water resources. The water dispute issue has added to the innumerable other bilateral problems that plague south Asia, including territorial dispute, migration problem, and others.

The Brahmaputra river water diverting plan of the Chinese can prove disastrous for India and Bangladesh. Besides environmental problems, the plan can affect India's own river-linking project plan by which it aims to reduce domestic water scarcity problem.

Professor Brahma Chellany, according to whom China has acted as a 'hydro-hegemon', said the country cares little for environment-friendly use of rivers and institutional water-sharing mechanism and instead prefers unilateral settlement of the issues.

It is the country which has built the most number of dams in history and often locked horns with its neighbours over water-sharing problems. Even it has had problems with its political allies like North Korea and Pakistan over water.

Besides, politicisation of the Brahmaputra issue can even affect the Arunachal Pradesh issue, a thorn in the India-China relations.

China never divulges details of its plan and its assurances, hence, are not convincing. It had even denied setting up the Zangmu project before finally admitting it last year.

It is necessary for India to pressurise Beijing for regular hydrological data sharing and providing satellite imaging. India and China can also opt for a water-sharing mechanism to settle the Brahmaputra water issue. In fact, the issue can not just be confined to a bilateral one. All states affected by the issue must join hands and arrive at a unanimous decision on water management or otherwise, it will not be sustainable.

Just issuing periodical statements pacifying domestic apprehensions that China will choke the northeastern region to death, it is necessary for India to come out with a complete picture on the matter, before it gets too late.

China will care little for others if it really aspires to complete the dam on time , but India must be ready with a Plan B. Diplomatic channels can be utilised more to reach a formal settlement for as, Assam Chief Minister Tarun Gogoi once rightly commented on the matter, “Situation keep changing and we have to be careful.”

“Govt's assurance against Chinese dam plan not convincing”, 22/05/2012, online at: http://news.oneindia.in/feature/2012/brahmaputra-dam-threat-remains-despite-ministers-claims-1005209.html

BACK TO TOP

❖ The resistible rise of Asia?

MENAFN - Jordan Times) A favourite theme in international debate nowadays is whether Asia's rise signifies the West's decline. But the current focus on economic malaise in Europe and the United States is distracting attention from the many serious challenges that call into question Asia's continued success.

To be sure, today's ongoing global power shifts are primarily linked to Asia's phenomenal economic rise, the speed and scale of which have no parallel in world history. With the world's fastest-growing economies, fastest-rising military expenditures, fiercest resource competition, and most serious hot spots, Asia obviously holds the key to the future global order.

But Asia faces major constraints. It must cope with entrenched territorial and maritime disputes, such as in the South China Sea; harmful historical legacies that weigh down its most important interstate relationships; increasingly fervent nationalism; growing religious extremism; and sharpening competition over water and energy.

Moreover, Asia's political integration badly lags behind its economic integration, and, to compound matters, it has no security framework. Regional consultation mechanisms remain weak. Differences persist over whether a security architecture or community should extend across Asia, or be confined to an ill-defined "East Asia".

One central concern is that, unlike Europe's bloody wars of the first half of the 20th century, which made war there unthinkable today, the wars in Asia in the second half of the 20th century only accentuated bitter rivalries. Several interstate wars have been fought in Asia since 1950, when both the Korean war and the annexation of Tibet started, without resolving the underlying Asian disputes.

To take the most significant example, China staged military interventions even when it was poor and internally troubled. A 2010 Pentagon report cites Chinese military preemption in 1950, 1962, 1969, and 1979 in the name of strategic defence. There was also China's seizure of the Paracel Islands from Vietnam in 1974, and the 1995 occupation of Mischief Reef in the Spratly Islands, amid protests by the Philippines. This history helps to explain why China's rapidly growing military power raises important concerns in Asia today.

Indeed, not since Japan rose to world-power status during the reign of the Meiji Emperor (1867-1912) has another non-Western power emerged with such potential to shape the global order. But there is an important difference: Japan's rise was accompanied by the other Asian civilisations' decline. After all, by the 19th century, Europeans had colonised much of Asia, leaving in place no Asian power that could rein in Japan.

Today, China is rising alongside other important Asian countries, including South Korea, Vietnam,

India, and Indonesia. Although China now has displaced Japan as the world's second largest economy, Japan will remain a strong power for the foreseeable future. On a per capita basis, Japan remains nine times richer than China, and it possesses Asia's largest naval fleet and its most advanced high-tech industries.

When Japan emerged as a world power, imperial conquest followed, whereas a rising China's expansionist impulses are, to some extent, checked by other Asian powers. Militarily, China is in no position to grab the territories that it covets. But its defence spending has grown almost twice as fast as its GDP. And, by picking territorial fights with its neighbours and pursuing a muscular foreign policy, China's leaders are compelling other Asian states to work more closely with the US and each other.

In fact, China seems to be on the same path that made Japan an aggressive, militaristic state, with tragic consequences for the region - and for Japan. The Meiji Restoration created a powerful military under the slogan "Enrich the country and strengthen the military". The military eventually became so strong that it could dictate terms to the civilian government. The same could unfold in China, where the Communist Party is increasingly beholden to the military for retaining its monopoly on power.

More broadly, Asia's power dynamics are likely to remain fluid, with new or shifting alliances and strengthened military capabilities continuing to challenge regional stability. For example, as China, India, and Japan manoeuvre for strategic advantage, they are transforming their mutual relations in a way that portends closer strategic engagement between India and Japan, and sharper competition between them and China.

The future will not belong to Asia merely because it is the world's largest, most populous, and fastest-developing continent. Size is not necessarily an asset. Historically, small, strategically oriented states have wielded global power.

In fact, with far fewer people, Asia would have a better balance between population size and available natural resources, including water, food, and energy. In China, for example, water scarcity has been officially estimated to cost roughly $28 billion in annual industrial output, even though China, unlike several other Asian economies, including India, South Korea, and Singapore, is not listed by the United Nations as a country facing water stress.

In addition to its growing political and natural-resource challenges, Asia has made the mistake of overemphasising GDP growth to the exclusion of other indices of development. As a result, Asia is becoming more unequal, corruption is spreading, domestic discontent is rising, and environmental degradation is becoming a serious problem. Worse, while many Asian states have embraced the West's economic values, they reject its political values.

So make no mistake. Asia's challenges are graver than those facing Europe, which embodies

comprehensive development more than any other part of the world. Despite China's aura of inevitability, it is far from certain that Asia, with its pressing internal challenges, will be able to spearhead global growth and shape a new world order.

"The resistible rise of Asia?", 21/05/2012, online at: http://www.menafn.com/menafn/1093515232/The-resistible-rise-of-Asia

BACK TO TOP

❖ How Can We Ensure Clean Water for All?

An exhibition of inventions, artwork and artifacts explores our relationship with water and how the world might cope with future scarcity of this invaluable resource

You are a bag of water—some three quarters H2O at birth, falling to three fifths in adulthood—so the fate of Earth's freshwater resources in large part delineates your fate as well.

"Surface Tension: The Future of Water," explores the matchless beauty of water and celebrates humankind's diverse interactions with our most important molecule. The exhibition, being mounted by the Science Gallery at Trinity College Dublin as part of New York City's upcoming World Science Festival May 30 to June 3, also considers various critical aspects of the present state of our water supply as well as what may happen to it in time.

Earth has plentiful water, but only a tiny fraction is available for human use, and a still smaller amount is potable. The seven billion people living on our planet rely on the same 1 percent of available freshwater as did every previous generation. In the meantime many of us use far too much freshwater whereas many more cannot find enough to use at all, and climate change can only exacerbate the problem—a disturbing prospect that may result global tensions, even wars.
The interactive show, which comprises more than 50 different exhibits developed by scientists, engineers, artists and designers, delves into the multiplicity of our relations with the very stuff of life, playing on water's unique physical properties, its crucial roles in living, political and economic systems, and new ways by which it can beharnessed, purified and distributed.
Jump in.

"Surface Tension," which first opened in Dublin, will run from May 30 through August 11, 2012, at the Eyebeam Art + Technology Center in New York City (free admittance). For more information, visit the Science Gallery's "Surface Tension" site and the exhibit's World Science Festival page.

"How Can We Ensure Clean Water for All?", 21/05/2012, online at:
http://www.scientificamerican.com/article.cfm?id=how-ensure-clean-water-all

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ WWF receives award for contribution to the conservation of Vietnam's Tram Chim National Park

Dong Thap province, Vietnam – The People's Committee of Dong Thap province has honoured WWF with a medal and certificate of merit in recognition of the organisation's contribution to the conservation of the wetland habitat in Tram Chim National Park.

The award was presented to WWF at an event today in Tram Chim National Park, and marked the official designation of the park as the first Ramsar site in the Mekong Delta. This is Vietnam's fourth Ramsar site and the 2,000th site to be designated globally. Ramsar sites are wetlands of international importance, designated under the Convention on Wetlands, called the Ramsar Convention.

"WWF is honoured to receive this award," said Kevin Marks, Project Manager with WWF-Vietnam. "We hope the global attention on Tram Chim's designation as the 2000th Ramsar site will serve to highlight the importance of this site and reinforce protection efforts."

Tram Chim National Park, located in the Mekong Delta province of Dong Thap, is one of the last remnants of the original wetland landscape of the Plain of Reeds, a vast wetland area of about 13,000 km2 in the provinces of Dong Thap, Tien Giang, and Long An (Lang Sen) in Vietnam, and part of Svay Reang in Cambodia.

The Park has tremendous biodiversity, including over 230 bird species and 130 fish species. Its most striking visitor, the Sarus Crane, is listed as endangered on the IUCN Red List and visits annually from the end of January through to mid-May.

Under earlier management efforts, water was permanently stocked in the park in order to suppress fire. However, the wildlife in Tram Chim is adapted to a six-month dry season and a six-month flood season, and year-round water stocking was interrupting the natural rhythm. As a result, habitats dwindled and species disappeared. Importantly, the purple spikerush (Eleocharis atropurpurea), the main food of the Sarus Crane, was reduced significantly due to this regime, thereby reducing the number of these birds at the site.

Since 2008, WWF has been working with the park authorities to restore the habitats of Tram Chim and to mimic its natural and historical conditions. The work was delivered as a part of a global partnership between WWF and The Coca-Cola Company in which the two organisations work collaboratively to conserve seven freshwater river basins around the world, including the Mekong River.

Tram Chim National Park was the first wetland protected area in Vietnam to adopt an ecosystem based management approach and involves rehabilitating ecosystem processes and providing legal access for communities to wetland resources. This was a major deviation from standard practice at the time and has yielded strong results, including the recovery of many of the bird species at the park, such as the Sarus Crane.

"The innovative management approach in Tram Chim has delivered positive results and we encourage other important conservation sites throughout the country to learn from and replicate these efforts," added Marks.

In addition to stocking water permanently, the previous management regime excluded locals from the park. This gave locals little option to legally access the wetland resources on which they depend for their livelihoods, particularly fish. Under the new management approach, local people have been provided with legal and sustainable access to wetland resources. This encourages locals to help manage the resource sustainably and thereby become partners in conservation.

"Since the Park was established in 1998, we have worked hard to meet the criteria to secure the Ramsar designation," said Mr. Nguyen Van Hung, Director of Tram Chim National Park. "We are proud to have now achieved this important milestone, with the support from our partners. We hope our success will inspire other wetland sites in Vietnam to pursue Ramsar designation in the near future."

In 2011, WWF and the Biodiversity Conservation Agency (BCA) – the Government focal point for Ramsar under the Ministry of Natural Resources and Environment, signed a MoU to commit support to efforts in five wetland sites in the Mekong Delta to pursue Ramsar designation in the years to come.

"Vietnam has many wetland sites that offer high potential for achieving Ramsar site status. The Government is committed to supporting these sites to meet the criteria set by Ramsar. We believe that with the support from WWF and other organizations that care about wetland conservation, the Mekong delta will have not only one but many more Ramsar sites in the future." Dr. Pham Anh Cuong, the Director of BCA said.

Alongside the award ceremony in Tram Chim National Park, experts and authorities from the 13 Mekong Delta provinces gathered at the 4th Mekong Delta Conservation Forum (May 21 - 22) to discuss the importance of wetlands for livelihoods and conservation.

The Forum is a WWF initiative that encourages stakeholders from all sectors to discuss concerns and opportunities for sustainable development of the Mekong Delta. After three years of successfully organising the forum, WWF handed over the ownership to the government and the 4th Forum was initiated by the Ministry of Natural Resources and Environment (MONRE) in co-operation with Dong Thap province's People Committee, with support from WWF.

"WWF receives award for contribution to the conservation of Vietnam's Tram Chim National Park", 22/05/2012, online at: http://wwf.panda.org/wwf_news/?204806/WWF-receives-award-for-contribution-to-the-conservation-of-Vietnams-Tram-Chim-National-Park

BACK TO TOP

❖ $2.9bn for water, energy projects

By Hasan Kamoonpuri — MUSCAT — The Public Authority for Electricity and Water (PAEW) is all set to organise in association with Al Irtehal Exhibition Organisers and Managements a three-day international exhibition on Oman's water, electricity and power sectors from tomorrow at the Oman International Exhibition Centre. Oman Establishment for Press, Publication and Advertising (OEPPA), publisher of the Observer and Arabic daily Oman, is the media sponsor.
Muscat International Water, electricity and Power Sustainable Exhibition 2012 (WEPEX) assumes special significance in view of the new power, water and energy projects worth $180 billion which are currently under way in the Middle East, Galal M Raskhan, General Manager, Al Irtehal, told the Observer. Significantly, Oman has set aside $2.9 billion for 13 new power, water and energy projects which are being launched this year.
According to the World Energy Council, the GCC will require 100 GW of additional power over the next 10 years to meet growing demand. The power sector will require $50 billion worth of investments in power generating capacity and $20 billion in desalination. WEPEX 2012 holds out immense opportunities for manufacturers and service providers in the vital and varied economic sectors covered by the three-day exhibition, said Galal.
Mohammed bin Abdullah al Mahrouqi, PAEW's Chairman, said, "Wepex 2012 is important because electricity and energy sectors play a major role in the economic and social development process, and corresponding to the progresses being witnessed in the Sultanate with reference to the expansion, prospecting and exploration of oil and gas, accompanied with the petrochemical industries."

Galal said, "Wepex 2012 will demonstrate how to make the best use of the renewable energy, thanks to its merits and environment-friendly characteristics. Besides, Wepex 2012 concerns with other products which deal with systems, equipments of the electrical powers and address the strategies of the business administration and techniques of rationalising the energy, raise the efficiency, improve the performance of the electrical sector and develop its services."
WEPEX 2012, the first ever to focus extensively on the integration of applications in the fields of water, electricity and power, is all set to bring together a large number of leading Omani and foreign organisations on one platform, thus offering immense networking and business deals opportunities.

It is the first international specialised exhibition that goes hand in hand with the government programmes on optimal utilisation of natural resources and usages of energy.
Besides presenting state-of-the-art technologies and their applications in the three fields, there will be seminars and workshops on the sidelines of the exhibition.
The exhibition is also sponsored by Safeer automotive, Haya Water, Muscat Electricity Distribution Co, Majan Electricity Co, and Voltapm.

"$2.9bn for water, energy projects",21/05/2012, online at: http://main.omanobserver.om/node/95925

BACK TO TOP

❖ Chile's vanishing Patagonian lake

SANTIAGO — In less than 24 hours Lake Cachet II in Chile's southern Patagonia vanished, leaving behind just some large puddles and chunks of ice in the vast lake bed.

The lake's water comes from ice melting from the Colonia Glacier, located in the Northern Patagonian ice field, some 2,000 kilometers (1,250 miles) south of the capital, Santiago.

The glacier normally acts as a dam containing the water, but rising temperatures have weakened its wall. Twice this year, on January 27 and March 31, water from the lake bore a tunnel between the rocks and the glacier wall.

The result: Lake Cachet II's 200 million cubic liters of water gushed out into the Baker river, tripling its volume in a matter of hours, and emptying the five square kilometer (two square miles) lake bed. Cachet II has drained 11 times since 2008 -- and with global temperatures climbing, experts believe this will increase in frequency.

"Climate models predict that as temperatures rise, this phenomenon, known as GLOFs (Glacial Lake Outburst Floods), will become more frequent," said glaciologist Gino Casassa from the Center for Scientific Studies (CES).

Casassa, a member of the 2007 Nobel Peace Prize-winning Intergovernmental Panel on Climate Change, told AFP there have been 53 similar cases of lakes draining in Chile between 1896 and January 2010, with increased frequency in the later years.

CES research assistant Daniela Carrion was camped out with a small research team taking measurements of the Colonia Glacier when the lake drained in March.

"When we woke up, we saw a change in the valley," Carrion told AFP. "The paths that we walked on had flooded, and the whole area was filled with large chunks of ice."

The lake dropped 31 meters (90 feet) when the water drained out, according to a report from the General Water Directorate, which monitors lake levels in Chile using satellite data.

When the lake starts draining an alarm system is triggered, giving residents in the sparsely-populated area up to eight hours to move animals and flee to higher ground.

The Tempanos Lake, also in far southern Chile, drained in a similar fashion in May 2007. Forest rangers working to save endangered huemuls -- mid-sized deer native to the region -- were surprised when they came across the empty lake. There were ice floes on the floor of the ten square kilometer lake bed, but no water.

Forestry officials had visited Tempanos in April and it was full, and when a team of scientists and naval officials flew over the area in July they found that the lake, which also is fed by waters from a nearby glacier, was starting to re-fill.

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

The GLOF phenomenon is not exclusive to Patagonia: it has happened in places like the Himalayas, and in Iceland due to volcanic activities, Casassa said.

In a phenomenon also related to rising temperatures, a slab of ice the size of a city block broke off Peru's Hualcan glacier and slid into a high mountain lake with destructive consequences in April 2010.

The crash unleashed a giant wave that breached the lake's levees, causing a tsunami of mud on a village in the northern province of Carhuaz that destroyed more than 20 homes and leaving some 50 people homeless, regional Civil Defense chief Cesar Velasco told the state Andina news agency.
A 2009 World Bank report said that in the last 35 years, Peru's glaciers have shrunk by 22 percent, leading to a 12 percent loss in the amount of fresh water reaching the coast, home to most of the country's citizens.

"Chile's vanishing Patagonian lake", 22/05/2012, online at:
http://www.google.com/hostednews/afp/article/ALeqM5jIwNEe-57V24OOBGE2qqWxnARLlw?docId=CNG.e7703216509201558806d4e7e37448b4.5f1&utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=3b1887e99d-RSS_EMAIL_CAMPAIGN&utm_medium=email

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Big Hydropower Dams Trump Alternative Energy in Chile

SANTIAGO, May 22, 2012 (IPS) - Chile has enormous potential for producing non-conventional renewable energies (NCRE) like solar and geothermal, yet they only contribute three percent of the country's energy mix.

Huge hydropower companies, exploiting many of the rivers in the country's wilderness regions in the south, are at the forefront of energy generation.

"Chile has very little oil and natural gas in the south, and the coal is of poor quality, so in the 1930s the idea emerged that the rivers were the only viable source of energy for the country," Juan Pablo Orrego, who holds a master's degree in environmental sciences and is head of Ecosistemas, a local NGO, told IPS.

"The problem is that we have remained bogged down in this paradigm," said Orrego, who won the 1998 Right Livelihood Award, also known as the Alternative Nobel Prize.

During the 1973-1990 dictatorship of General Augusto Pinochet, the 1980 constitution was approved, and the 1981 Water Code and the 1982 General Electricity Services Law were enacted.

This "astute trio of laws provides the legal basis for transnational corporations today to have absolute control of our country's water resources," said Orrego.

Chile has an installed capacity of 17,000 megawatts, of which 74 percent powers the Central Grid System (SIC), 25 percent serves the Northern Grid (SING), and less than one percent is devoted to two small grid systems in the southern regions of Aysén and Magallanes.

There are nearly 40 hydropower stations nationwide, and 10 more projects are undergoing environmental assessment.

Hydroelectricity supplies 34 percent of the country's energy, while thermal power stations provide 63 percent, and the remaining three percent is generated by NCRE.

In 2008 the government of socialist former president Michelle Bachelet (2006-2010) enacted a law to foment NCRE, such as biomass from agricultural waste, small hydropower stations, and wind, solar and geothermal energies.

According to the renewable energy law, from 2010 on, five percent of energy supplied by electricity generators with capacity of more than 200 megawatts must come from NCRE or from hydropower plants with capacities below 40,000 kilowatts.

The proportion of NCRE is to increase by 0.5 percent a year, and reach 10 percent of total electricity generation in 2024.

Early this year, the government of rightwing President Sebastián Piñera announced a National Energy Strategy

for 2012-2030, whose aims include "more than doubling" NCRE use over the next decade, compared to the provisions of the 2008 law.

The strategy aims for large hydropower stations to provide 45 to 48 percent of the national energy mix, with the remainder being made up by thermoelectric generation.

The plan to expand hydropower development relies on the vast water resources of Chile's southern Patagonia area, especially in the Aysén region, 1,700 km south of Santiago.

The pristine wilderness region of Aysén has some of the largest reserves of fresh water on the planet, and great biodiversity, according to environmental groups.

According to Orrego, who is the international coordinator for Patagonia Without Dams, a worldwide campaign opposed to building dams on rivers in the wilderness area, the government strategy "gives strong backing to energy mega-businesses, which are closely related and provide feedback to the mining mega-business" in this country, the world's premier producer of copper.

CODELCO, the state-owned copper corporation, indicates that over the next seven years 97 billion dollars are to be invested in mining projects, a sum greater than Chile's total mining investments in the past 25 years.

"That is the heart of Chile's energy problem," said Orrego, referring to the voracious demand for energy of the mining industry, located mainly in the north of the country.

The large energy companies involved in mining projects "don't pay for water rights, and they don't pay compensation for the destruction of the environment, the river basins, or the landscape," Orrego said.

The Italian corporation Enel, which controls Endesa Chile, is responsible for the construction of the HidroAysén complex of dams, in association with the Chilean company Colbún. And Energía Austral, owned by Australia-based Origin Energy and Anglo-Swiss mining company Xstrata, is planning to build the Río Cuervo hydropower station, also in Aysén.

In the view of economist Jorge Rodríguez Grossi, who served as energy minister in the government of former president Ricardo Lagos (2000-2006), the environmentalists' opposition is "irrational."

"Hydroelectricity has been a mainstay of the Central Grid System, and from an environmental point of view, electricity produced with water power is one of the cleanest forms of energy there are," he told IPS.

"Given that water is a resource that Chile has, it is quite irrational to object to its use," he argued.

Rodríguez Grossi, now dean of the Faculty of Economics at Alberto Hurtado University, said NCREs "are still lagging in terms of technology, and are expensive and inefficient. By law, the Chilean electricity service seeks to use the most economic and efficient forms of energy."

As for proposals that the north of Chile should develop non-conventional energy sources, in order to circumvent the need for lengthy power lines stretching all the way from the south, Rodríguez Grossi said the country's northern Atacama desert "has solar radiation levels among the highest in the world, and the nation also has abundant geothermal resources, but the technologies are not cheap, and they are not efficient."

Environmentalists, who have taken their campaign against the mega-dams to the courts, scored a major victory on May 11, when the Supreme Court ordered a halt to construction of the Río Cuervo dam.

The decision was based on a report by the National Geology and Mining Service describing the dangers posed to the local population due to the project's location on a geological fault.

"Río Cuervo is one of the first cases in which citizens' protests achieved a response from the courts," Hernando Silva, head of the legal section of the Citizen's Observatory, a local human rights group, told IPS.

"The ruling sets a precedent for recognition by the courts of the arguments of civil society organisations that bring to light the problems in the way hydroelectric projects have been approved," he said.

Rodríguez Grossi, in contrast, said the court rulings blocking hydroelectric projects have no environmental basis "and, in general, projects that have received environmental approval have not been subsequently questioned."

He said the country should encourage the production of electricity with every resource at its disposal, "as well as with resources it can bring in from abroad."

Orrego, however, said that forging ahead with hydropower projects "is the worst thing Chile could do in terms of energy development. We should opt for a distributed pattern of electricity generation, with much smaller-scale projects scattered throughout the country." (END)

“Big Hydropower Dams Trump Alternative Energy in Chile”, Marianela Jarroud, 22/05/2012,online at: http://www.ipsnews.net/news.asp?idnews=107872

BACK TO TOP

❖ In new film, UCI professor warns of water crisis

Water supplies are dwindling around the world, and a rapidly changing climate will likely make the situation far worse in coming decades.

Water supplies are dwindling around the world, and a rapidly changing climate will likely make the situation far worse in coming decades.

And with a likelihood of increasing drought, Southern California is in the "crosshairs."

That is the message conveyed by UC Irvine Earth System Science Professor Jay Famiglietti in "Last Call at the Oasis," a new film now showing in Irvine.

Famiglietti is one of the experts who appears in the film, delivering his warning about too-rapid drawdown of water supplies, and a changing climate that will render some parts of the world too dry while inundating others.

He can back up his claims. Using NASA satellite data, Famiglietti for years has studied the effects of climate change on water movement around the world.

He's measured depletion of groundwater in California's Central Valley. And while that appears to be mostly the result of over pumping, a changing climate will likely continue to reduce the snowpack in the Sierra, in turn reducing the amount of snowmelt that can be captured and stored.

The film was made by the same company behind Al Gore's "Inconvenient Truth," as well as "Food, Inc.," and directed by Academy Award winner Jessica Yu.

It is showing at Edwards University Town Center.

Q. What is the thrust of the film?

A. It paints a picture of the global water crisis, and most important, many aspects happening right here in the United States already. Water quality and water availability are worsening. There are issues of water pollution all around the world. It kind of looks around at other countries -- Australia and Singapore and the Middle East -- and looks at what people are doing in other countries to tackle their water problems. And it offers those as advice on what we may do here in the United States.

Some of these countries are further along in their problems. Australia is in the middle of a prolonged drought -- more realistically, probably climate change. They're going to be having severe water shortages in the future. It's used as an example of how to deal with water conflict peacably.

Q. What is your role in the movie?

A. My role is (as) one of the featured experts. The movie is really composed as a set of vignettes, really a set of stories. It starts in Las Vegas, goes to California, goes to Australia. Then back in the

United States, in Michigan, in Hinckley, California, with Erin Brockovich. My story is mostly about California. We get brought back to it a few different times.

Q. What are the implications for the United States, the western U.S.? What is going on with our water?

A. In the western U.S. the situation we're facing is much more (one of) quantity than quality. With climate change comes a decrease in snowpack. We rely on snowpack for our water supply. By the end of the century it will mostly be gone. And the other thing we face in the western part of the country is population growth. And so those two together will pose great challenges for water managers, to figure out where the water will come from and how to get the water to this growing population in the face of this changing climate and disappearing snowpack.

Q. Is the reduction in snowpack definitely the result of climate change?

A. Oh yeah. And other issues in California are going to be food production and groundwater depletion in the Central Valley. So altogether it is not a pretty picture. When you think about all the things that are happening in California -- disappearing snowpack, disappearing groundwater, population growth, impacts on food security, and of course the economy, not only of California but of the nation -- it's quite a compelling story.

Q. Is the loss of groundwater also related to climate change?

A. Yes and no. The reason it is related to climate change is through recharge and replenishment of groundwater. Most of the groundwater in the Central Valley has accumulated there over thousands and thousands of years. And so we're using it now at a much faster rate than it is being replenished. The climate change part comes in with lack of snowmelt that would normally come in with the groundwater.

It's disappearing because we're using it a lot. When farmers stopped getting surface water allocations from the Delta, surface water was reduced by as much as 90 percent. Farmers had no choice but to start pumping groundwater to meet their irrigation needs. That's when we start seeing a very very big decline in groundwater. It's a very natural human response to drought. When you have a drought, you don't have any rain, there's not as much stream flow, not as much snow in our case. We're hitting the reserve very hard, and it's one that won't be replenished.

We live in a part of the world that is going to see more and more drought. I think we're fooled into thinking we're not going to be because of the great infrastructure we have to move water from Northern California to Southern California. The reality is, we're going to see more (drought). Much of Southern California right now is in the crosshairs of climate change. We're in that part of the world that is going to get drier.

Q. Is there more we should do? Conservation, production, recycling?

A. Whenever we look at the water budget in almost any area, most of it is used for agriculture. All around the world, about 80 percent of the water is used for agriculture. So the biggest gains that can

be made, with respect to conservation, will be made in agriculture. We talk about conservation and efficiency together. So doing things more efficiently and conserving are the same thing. They go hand in hand.

The biggest segment of home water use goes to irrigation. Sprinklers, lawn and landscape irrigation. Anything we can do to cut back on that, whether it's watering existing landscape less, cut way way back on it, or replace it with more drought tolerant vegetation -- those are some of the best things we can do. Home landscaping accounts for somewhere between 50 and 75 poercent of home water use, at least in the dry parts of the world.

In the house, toilets and showers, those are the biggest ones. More efficient toilets, shorter showers, all the usual stuff.

But people really need to think about it because we are, again, in the crosshairs.

gain, in the crosshairs.

"In new film, UCI professor warns of water crisis", 25/05/2012, online at: **http://www.ocregister.com/news/water-356010-climate-film.html**

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ H2O Innovation: Professional Water Technologies holds first annual international distributor conference, adds two new distributors in South America

Professional Water Technologies products obtain REACH compliance, opening European market

Quebec City, QC, May 25, 2012 - (TSXV: HEO) - H2O Innovation Inc. ("H2O Innovation" or the "Company") announces that its Professional Water Technologies' team ("Professional Water Technologies" or "PWT") successfully held last week in San Diego, California its first annual international distributor conference. Held over the course of three days, Professional Water Technologies' invitation-only event brought together distributors from all around the world for exclusive conferences and training sessions on membrane filtration specialty chemicals. The event was highly prized by all participating distributors, who appreciated networking and deepening their knowledge of Professional Water Technologies' products. In parallel, Professional Water Technologies has recently signed agreements with two new distributors in Brazil and Argentina, increasing its presence in South America. And shortly before the event, Professional Water Technologies' products line was qualified as REACH compliant, an important milestone enabling its sale in the European Community.

"This first international reunion of our Professional Water Technologies sales force will have a multiplier effect on our sales. Its holding is a clear and solid investment we are making in the growth of our Professional Water Technologies brand, which is very likely to have a direct contribution to improving our results in the next fiscal year. It is an investment we intend to repeat next year and in the years ahead. This conference and the enhanced support we are providing to our international distributors will undoubtedly enable us to attract new distributors in other regions of the world", said **Frédéric Dugré**, President & CEO of H2O Innovation. "And with the addition before our conference of two new distributors in South America and the confirmation of our products' compliance with the European REACH regulation, the future looks more promising than ever for our specialty chemicals and consumables business line", concluded Frédéric Dugré.

During the conference, Professional Water Technologies' team of membrane filtration specialists covered numerous topics in a series of presentations, trainings and round table discussions: reverse osmosis system design, use of specialty chemicals in MF/UF systems, marketing tactics and competitive positioning, as well as a review of new products recently launched and of PWT's extensive laboratory capabilities for membrane forensics. Distributors from Australia, China, India, Malaysia, Mexico, Thailand, South Korea, the United States and Europe attended the conference.

"It was a great pleasure spending time with all participants, sharing strategy and market knowledge, but also allowing them to meet each other and share market insights and selling tactics. We have received numerous highly appreciative feedbacks from our distributors, many outlining how they have come out of the conference better tooled to grow their business with us. We are very confident that most - if not all - will increase their annual purchasing level while some have already plans underway to expand to new territories", said **David Russell**, Vice President of Professional Water Technologies.

New distributors in Brazil and Argentina
Professional Water Technologies' new distributors are LAX Logistica in Brazil and Aquarep in Argentina. In their respective national markets, these new distributors will represent Professional Water Technologies' line of patent-pending high performance reverse osmosis chemicals and membrane cleaners, including its flagship product SpectraGuard(TM), a super concentrated phosphate-free antiscalant for reverse osmosis water treatment systems.

REACH compliance opens European market for PWT products through its distributor Omya
Just a few weeks before the conference, Professional Water Technologies' products were confirmed REACH compliant. REACH compliance is a mandatory requirement under European Community Regulation (EC) No. 1907/2006, a regulation concerning the registration, evaluation, authorization and restriction of chemicals. It regulates the sale of chemical substances in the 27 member states of the European Union. Omya International AG ("Omya"), a leading global producer of industrial minerals, worldwide distributor of chemical products, and PWT's representative in Europe, the Middle East and Africa, can now actively market Professional Water Technologies' products to European municipal and industrial customers. Having two senior representatives present at the conference, Omya is now fully prepared to promote the PWT product line in Europe and, in fact, is at present calling on some of their largest clients in Spain - one of the largest desalination markets in the world.

Prospective disclosures
Certain statements set forth in this press release regarding the operations and the activities of H2O Innovation as well as other communications by the Company to the public that describe more generally management objectives, projections, estimates, expectations or forecasts may constitute forward-looking statements within the meaning of securities legislation. Forward-looking statements concern analysis and other information based on forecast future results and the estimate of amounts that cannot yet be yet determined. Forward-looking statements include the use of words such as "anticipate", "if", "believe", "plan", "estimate", "expect", "intend", "may", "could", "should", "will", and other similar expressions, as well as those usually used in the future and the conditional, notably regarding certain assumptions as to the success of a venture. Those forward-looking statements involve a number of risks and uncertainties, which may result in actual and future results of the Company to be materially different than those indicated. Information about the risk factors to which the Company is exposed is provided in the Annual Information Form dated September 28, 2011 available on SEDAR (www.sedar.com). Unless required to do so pursuant to applicable securities legislation, H2O Innovation assumes no obligation to update or revise forward-looking statements contained in this press release or in other communications as a result of new information, future events and other changes.

About Professional Water Technologies
Professional Water Technologies, an H2O Innovation brand, develops, manufactures and markets specialty chemicals for municipal and industrial nanofiltration ("NF") and reverse osmosis ("RO") membrane systems. Its environmentally friendly phosphate-free super-concentrated antiscalants are eleven times more concentrated than standard antiscalants, reducing shipping/handling by 90% and reduce drum disposal requirements. With a complete line of NF and RO pretreatment and maintenance products, comprehensive analytical and technical capabilities, and an innovative

research and development group, Professional Water Technologies offers solutions to maximize the efficiency and economy of membrane systems operations.

About H2O Innovation
H2O Innovation provides integrated technological water treatment solutions based on membrane filtration technology to municipal, energy & mining end-users. H2O Innovation designs state-of-the-art custom-built water treatment systems for the production of drinking water and industrial process water, the reclamation and reuse of water, and the treatment of wastewater, while providing a complete line of specialty chemicals and consumables for membrane filtration and reverse osmosis systems. With more than 110 employees and seven locations in North America, H2O Innovation is also a founding partner of H2O Innovation India, a joint venture based in Mumbai, India. Shares of H2O Innovation are listed on the TSX Venture Exchange (HEO) and the NYSE Euronext Alternext Exchange (MNEMO: ALHEO). For more, visit www.h2oinnovation.com.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) nor the Alternext Exchange accepts responsibility for the adequacy or accuracy of this release.

,

"H2O Innovation: Professional Water Technologies holds first annual international distributor conference, adds two new distributors in South America", 25/05/2012, online at: http://www.reuters.com/article/2012/05/25/idUS136692+25-May-2012+HUG20120525

BACK TO TOP

❖ Xayaburi study questioned

A study the Lao government has used to claim the Xayaburi dam would be harmless if redesigned has been criticised for not addressing concerns about the project's effect on fish in the Lower Mekong river.

Lao Vice Minister of Energy and Mines Viraponh Viravong was reported as saying last week that a redesigned Xayaburi dam in northern Laos would allow a steady flow of sediment downsteam, thus allaying environmental concerns.

"First, we hired … Poyry to do the impact study, but people were not satisfied with that. And now we have hired a French company," he told Radio Free Asia. "This study … confirms that if the Lao government wants to let the dam be redesigned, there will be no impact on the environment."

Viraponh Viravong did not name the study's French authors, but conservation groups said Laos had commissioned Compagnie Nationale du Rhone (CNR) to review Poyry's 2011 study.

Marc Goichot, sustainable hydropower manager for WWF-Greater Mekong, said CNR failed to address concerns about potential effects on fish in the Lower Mekong.

"WWF's understanding is that the scope of the CNR review is limited to hydrology, sediment and navigation impact," he said. "Questions about fish and fisheries raised in response to the Poyry report have not yet been addressed."

International Rivers Southeast Asia programme director Ame Trandem said the new report was a "meaningless" attempt to woo fellow Mekong River Commission member countries.

"While Poyry sidestepped sci¬¬ence on the dam's fishery impacts, the new CNR review deliberately omits the dam's fishery impacts," she said. "Until the transboundary impacts of the project are assessed, Laos has no basis for claiming this dam is sustainable."

The four MRC member states – Cambodia, Thailand, Vietnam and Laos – agreed in December that the 1,260-megawatt could not proceed until further studies assessed its potential impact.

Japan last month agreed to help fund a study with MRC's other development partners.

Thai developer Ch.Karnchang said last month that construction had begun on the dam – the first of 11 along the Lower Mekong – on March 15. Laos agreed early this month to suspend construction.

Viraponh Viravong and CNR could not be reached yesterday.

"Xayaburi study questioned", 21/05/2012, online at:
http://www.phnompenhpost.com/index.php/2012052156277/National-news/xayaburi-study-questioned.html

BACK TO TOP

❖ Report examines how land, water and energy must be managed as a whole

Politicians globally must confront growing scarcity of natural resources in order to enable a transformation towards inclusive and sustainable growth over the coming decades concludes the team leader of a major new European Commission report, led by the Overseas Development Institute, in co-ordination with the German Development Institute (DIE) and the European Centre for Development Policy Management

Launched last week in Brussels, the 2012 European Report on Development highlights predicted increases in the scarcity of natural resources – with demand for water and energy expected to rise by 40% and demand for food by 50% before we reach 2030.

"An adequate response to emerging challenges, and specifically the linkages between water, energy and land, make it imperative to examine and manage the trade-offs not only among users and uses of the same resource, but also of other related resources," say the report's authors. "A drop of water, a piece of land, or a kilojoule of renewable energy cannot be seen through the single lens of one sectoral policy or management system. What might appear to be an efficient policy in one dimension can be harmful for the others, and different ways of exploiting water and land or producing renewable energy place different stresses on the other resources."

They warn that unless action is taken to confront these pressures, there will be considerable costs and missed opportunities. Environmental stresses (e.g. in water) affect women and girls disproportionally, lack of energy services is a binding constraint to economic growth, and the poorest are frequent losers from large scale land deals.

The 2012 European Report on Development introduces the concept of the water, energy and land nexus (the WEL nexus) as crucial to tackling these challenges in an integrated way. It also highlights a four pronged approach towards achieving a growth path that is socially inclusive and environmentally sustainable:

1. Demand management – reducing the environmental footprint of consumption, aiming to increase inclusive growth with fewer natural resources
2. Increased quality and quantity of supply of resources such as soil, renewable energy and water
3. Greater resource efficiency – promoting innovation in sustainable agriculture and renewable energy
4. Improved resilience – minimising the negative impact on the poorest for example by better and more transparent land deals

"Whilst global income poverty halved between 1990 and 2010, there are still close to a billon undernourished people, the same as 40 years ago. How can we feed 9.3 billion people sustainably by 2050? How can our planet deal with an expected increase by half in the amount of water, food and energy we consume over the next 20 years? How can we protect the poorest and most vulnerable countries and people that are frequent losers from the considerable environmental pressures on the planet's resource?," asks ODI's Dr Dirk Willem te Velde, Team leader of the 2012 ERD. "What we

have established is that countries need to avoid policy making in silos and stimulate integrated thinking that promotes the management of water, energy and land (WEL) as part of a WEL-nexus."

The solution must include public and private actors according to Dr te Velde: "The public sector co-ordinates, regulates and taxes and spends. It needs leadership, capacities and the right political incentives to set economies onto a transformative path along the four pronged approach. The private sector dependent on quality natural resources will increasingly see the value in providing access to resources and in making their business models more sustainable."

Looking specifically at renewables, the report highlights that developing renewable energy can provide energy to the poorest while reducing carbon dioxide emissions for all. "Given that energy-related GhG emissions are rising while the atmosphere's sink capacity is finite, the world needs to move from a high-carbon to a low-carbon path while still providing the required energy services for inclusive and sustainable growth. A key element of this transition is to increase the supply of renewable energy services and reduce the dependence on fossil fuels, first in the industrialised world, but also in developing countries," it says.

The authors of the report also suggest that large emerging powers also have the scope to make major reductions in their GhG emissions, and that there may also be "unexploited opportunities" for investment in renewable energy in those low-income countries with a large potential for renewable supply. These countries, the report argues, could be helped to adopt a 'green growth path', e.g. using climate finance when renewable energy is not yet economically viable, or to supply green energy for high-income countries.

A triple win

The provision of renewable energy can be a 'triple win' in terms of economic, social and environmental outcomes, says the report. The adoption of effective policy packages (such as the removal of market failures on capital markets, start-up incentives to reduce high initial capital costs related to the production of alternative energy, interventions to reduce negative externalities from the introduction of renewable energy plants, an efficient administrative regulatory framework and complementary skills) can help to make renewable energy economically, environmentally and socially sustainable. Kenya, for example, produces a large proportion of its electricity from green sources (hydropower, geothermal), including energy provided by the private sector enabled by an appropriate regulatory framework.

In practice however, the authors of the report found that these apparently attractive options for promoting renewable energy may not be feasible because of conflicting interests across groups (e.g. the lobbying power of fossil-fuel producers may pose an obstacle to boosting the production of renewable energy), short-term economic considerations (e.g. a rise in the price of fossil fuels sways public opinion against the removal of subsidies) or the lack of the right processes (e.g. the lack of participation impedes finding the right compromises between 'winners' and 'losers').

Furthermore, renewable energy sources such as biofuels, biomass and hydropower depend on land and/or water, and therefore a large increase in the supply of renewable energy could place considerable pressures on the other resources in the WEL nexus. "This underscores the need to

manage efficiency across the WEL resources, since an increased supply of renewable energy may create stresses on water and the environment – an important example of the WEL nexus. This is especially true of biofuels," stresses the report.

In countries such as China and India, which have large populations and high economic growth, the stress on water and land from the production of hydropower and biofuels may be particularly severe, although in the case of water this relates more to changes in basin flow regimes (including trans-boundary) rather than consumptive use. Concrete actions that policy-makers could take to preserve water and land include creating incentives for rainwater harvesting, the use of marginal land for production or the adoption of agricultural practices such as intercropping as well as smaller, decentralised dams and mini-hydropower.

"The much-needed investment in renewable energy must also bring with it a commitment to deal with distortionary energy subsidies that contribute to the over-exploitation of water. In some countries, the intensive use of groundwater is fuelled by energy subsidies, bleeding the energy economy dry and contributing to the overuse of resources. Investing in energy supply (albeit renewable) without addressing the politically difficult question of demand management – with energy and water locked together – is unsustainable," the report concludes.

Special emphasis on biofuels in the WEl nexus

Chapters 6 and 7 of ERD 2011/2012focus especially on biofuels and their interconnections with water and land use, finding that while biofuels have the potential to reduce the pressures on carbon space by reducing GhG emissions, they can impact on food and water security.

Biofuel feedstocks occupy some 2–3% of arable land worldwide. Since production is mostly in highly commercial agricultural areas, the impact on prices may be higher than the share in total area or production implies. Many factors such as oil prices, speculation and government interventions contributed to the 2008–09 spike in the price of food and the increases in biofuels may have raised food prices from between 5% and 20% in recent years.

Projections of future biofuel and food production indicate growing competition for land if all biofuel policies are fulfilled or if biofuels became economically viable without government support. Some suggest that biofuels could be responsible for 27% of world transport energy by 2050, and using 6% of the world's arable land.

"Global biofuel feedstock production affects land-use change, land pressure and food prices, particularly if its production depends on large amounts of external inputs. The effects on poor people in developing countries and to ISG are mainly via food prices, which create positive incentives for net-producers and negative impacts for net-consumers," says the report.

However, it does argue that the impact of biofuels on food production depends on "context-specific factors such as the land, technology and farming model used, and whether there is a spill-over to other crop production". Some biofuels are also very water-intensive, and the average water footprint of biomass is 70 times bigger than that of oil. "The water footprint of biofuels (e.g. from ethanol) also varies widely across countries and contexts, which underlines the need to monitor the effects of

biofuel production on water and land use," it concludes, again highlighting why water, land and energy should not be considered in isolation, but as part of an interconnected system.

"This report is particularly relevant and timely ahead of the UN Rio+20 conference and in the International Year for Sustainable Energy for All. Water, energy and land are crucial resources for development and human well-being and scarcity cannot be overcome by piecemeal actions," comments European Commissioner for Development Andris Piebalgs.

"Report examines how land, water and energy must be managed as a whole", 21/05/2012, online at: http://www.renewableenergymagazine.com/articulo-panorama-20511-47-Report%20examines%20how%20land,%20water%20and%20energy%20must%20be%20managed%20as%20a%20whole

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Annual Event to Focus on Water Industry Issues

Thousands of water professionals are expected to attend the American Water Works Association's annual conference and exhibition, planned for June 10-14 in Dallas, Texas.

ACE12 will feature a technical program with more than 550 presentations in 100 separate sessions and several in-depth workshops. Topics will include sustainability, management in tough economic times, climate change, conservation and water efficiency, residuals challenges, water resources management, infrastructure maintenance, legislative and regulatory issues, public affairs and more.

The ACE12 Exposition will showcase more than 500 exhibitors, presenting the latest products and services available to help ensure safe water. AWWA will once again host its New Product Technology Showcase, an exclusive area in the exhibit hall that will feature the latest and greatest technologies to address the challenges of the water industry.

During the Opening General Session of ACE12, Steve V. Roberts, a political pundit and award winning journalist, will share his experiences in covering politics and provide his opinions of the upcoming 2012 elections. Of particular interest to conference attendees will be a prediction of the outcome of the election of the 57th President of the United States and the impacts the drinking water sector might face as a result. Other highlights include a review of the current political climate and thoughts on how the water industry can make infrastructure needs prominent on the agenda of decision-makers.

The following Special Section includes a small sample of the many products and services that will be on display at ACE12.

e following Special Section includes a small sample of the many products and services that will be on display at ACE11.

"Annual Event to Focus on Water Industry Issues", online at: http://www.waterworld.com/index/display/article-display/3222571318/articles/waterworld/volume-28/Issue-5/editorial-features/ace12-preview/annual-event-to-focus-on-water-industry-issues.html

BACK TO TOP

❖ Dams Two Last

The statement alleged the central government has, through The statement alleged the central government has, through mostly private companies, allowed construction of 168 dams for 68,000 MW on various rivers of Arunachal Pradesh. Assam government's Scientific Expert Committee had submitted a report in 2010 which unanimously advised against mega dams in the lower eastern Himalayan region given its "highly" earthquake proneness as well as its "fluid" geological situation, they claimed. "The people of Assam, all living in the downstream of these projects, have asked the government to undertake a 'comprehensive cumulative studies' of Brahmaputra river basin and suggested that mega dams should not be constructed," they said. The Lower Subansiri Hydel Project (LSHP) in Gerukamukh is in the most advanced stage of construction. Since, November 2011, according to KMSS, by opposing transportation of goods and all critical equipment to the project site, the people of north bank have demonstrated their strong resistance to the mega dams, it said.

"Dams Two Last", 21/05/2012, online at: http://ibnlive.in.com/generalnewsfeed/news/dams-two-last/1001531.html

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Uganda to Spend More Than $1 Billion on Karuma Hydropower Plant

Uganda will spend more than $1 billion on the Karuma Hydropower Project, the country's presidency said.

The East African nation also plans to spend at least $13 billion on infrastructure over the next five years, according to an e-mail from the office of President Yoweri Museveni.

Construction of the 600-megawatt Karuma plant on the Nile River in the northwest of the country is expected to start later this year, according to the Energy Ministry.

"Uganda to Spend More Than $1 Billion on Karuma Hydropower Plant", 24/05/2012, online at: http://www.bloomberg.com/news/2012-05-24/uganda-to-spend-more-than-1-billion-on-karuma-hydropower-plant.html

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Water and human nature

My friend Zirgham Afridi, in his op-ed 'Indus waters' (May 15, 2012), notes that the Indus and her sister rivers are back in the discussion. His appraisal of the issue is excellent, being articulate and dispassionate. But it is dangerously narrow. His narrative needs to be complemented with a glimpse of the bigger picture of what is happening to our rivers, and indeed to our planet, even as policy-makers sit to deliberate on the Indus Waters Treaty (IWT). A glimpse of that bigger picture can be gainfully shared with the readers of this paper. But first, an anecdote.

Three-and-a-half year ago, while taking a course on International Law, and attending a class devoted to the Indus Waters Treaty, I went in with ideas about rivers and riparian treaties, quite similar to those expressed by the learned Mr Afridi. Legalistic, utilitarian and in a sense, purely rational. But then, there was something about the nondescript, humble-sounding visiting lecturer who taught that class, and the things that have I since read and certain intimate experiences I subsequently went through, that my perspective has changed entirely. This week, when Mr Afridi invited me, as one of his readers, to examine the IWT's value as a framework "given the changes... since 1960", an entirely different set of images welled up in my mind, then what would have come up, three-and-a-half years ago.

I did not think of abstruse treaty clauses and their differing legal interpretations nor of yet-to-be-built dams and possible megawatts to be harnessed. I began to think, instead, about the once mighty and beautiful rivers, Ravi and Sutlej, the vast valleys once associated with each, and the thousand of species that lived off them. I juxtaposed this image of nature's abundance with that of the now dead and parched river beds, and I felt sad. For thousands, perhaps hundreds of thousands of years, these rivers and the peoples who lived off them lived and breathed in great freedom. The sagacious savages realised that just as human life is not all about wealth, rivers are not just about water; and water, in turn, is not just about what it is worth to us humans. Somehow, in this last century, these eternal truths seem to have eluded us.

Mr Afridi points out that any solution to the IWT imbroglio must start with the sober realisation that "India as a country faces energy issues just like Pakistan does. It is only natural that India tries to extract maximum leeway on what it is allowed to do with the western rivers". He's right. The problem is not just with India; it afflicts both Pakistan and India. Both neighbours, as almost everybody on the planet today, seem to be doing the same thing: mercilessly exploiting rivers at the altar of (energy and irrigation) greed. But Mr Afridi is wrong to suggest that the "maximum leeway" or "unrestricted use" approach is "only natural." In fact, it is far from so. How and why have come to accept this as "only natural"? Why do we, today, as almost everyone else on the planet, need so much water? How have we come to justify this no-limits-barred approach to natural bounties? Is it because, as a civilisation, there is something "wrong" with us? Increasingly, it seems that we are not getting to any sustainable solutions to the IWT until we start asking these bigger questions.

Today the bigger picture in front of us is not the Indian threat; it is the imminent global environmental disaster, now staring all nations in the face. The picture that environmental scientists paint of the planet's future is, to say the least, dismal. It might have been excusable to miss that possibility out in the 1960s when the Indus Waters Treaty (IWT) was drafted. But it is criminal to do the same now – now when the Earth seems to be convulsing under the weight of our sins, manifesting

in the form of unprecedented pollution, amassed by a civilisation whose very basis seems to be the 'greed principle'.

In 2012, when negotiating about river systems, the top-priority on both sides can no longer be the maximisation of 'national self-interest'; that realist vision of public policy has, time and time again, proven itself to be a disaster. We have walked through hell in chasing this gold-rush vision. There has to be an end to this now. The priority now, particularly in questions such as the IWT, has to be the concept of doing 'least violence' to the eco-system – an ideal shared in the ethical traditions of both India and Pakistan, and possibly across the major religious communities of the world.

If India and Pakistan were to negotiate a treaty bearing the former vision in mind, rest assured the result would not be even remotely close to the IWT. We won't have as many megawatts or as many hectares of perennially irrigated land. But we also won't end up with dead rivers and dying valleys.

It does not matter which side of the border you are on. The need is to be sure about the direction in which, we, as a civilisation, want to head. The default direction doesn't seem very sunny. Today we are called upon by history to change course, not just tact. The gamut of tacts, IWT terms and conditions included, even lesser mortals can determine.

"Water and human nature", 26/05/2012, online at: http://www.thenews.com.pk/Todays-News-9-110576-Water-and-human-nature

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ Govt nods draft anti-water wastage law

Dhaka, May 21 (bdnews24.com) - The cabinet approved in principle the draft Bangladesh Water Act, 2012 on Monday with a provision of maximum five-year jail term or Tk 5 million in fine or both for wasting water.

The draft act, prepared in light with the National Water Policy to give the policy a legal framework for better management and use of water resources, was passed in a meeting of the cabinet chaired by Prime Minister Sheikh Hasina, Cabinet Division Secretary Mosharraf Hossain Bhuyian told reporters.

The draft would be presented to the cabinet again for final clearance after vetting by the law ministry, he said.

It stipulates that those violating the law would be sentenced up to five years in jail or fined Tk 5 million or both, depending on the level of violation, he said.

It also proposes fixing price for 'extra' water used from any source for meeting basic requirements like irrigation or personal use, the secretary said.

The cabinet had sent back the draft to the National Water Resource Council for correction when it had been placed in August last year.

The then government passed the water policy in 1999.

"It (the act) will prevent people from wasting water. After implementation of the law, it will be possible to supply pure water to the people," Bhuyian said.

"Underground and ground water levels are decreasing due to wastage of water. It happens as there is no law to check the wastage," the secretary said.

"This is a bad omen for us. The risk of quake increases when the level of water decreases," he added.

According to the draft act, the price of water would be fixed depending on the quantity of water used, the secretary said. "No one will have to pay for water used in household or farming."

In line with the policy, the draft proposes to keep the price of water 'logically less' for poor or underprivileged people, he said.

The price would be higher in case of commercial or industrial use, he added.

Former Director-General of the Water Resources Planning Orgnaisation Mohammad Shahjahan said the draft proposes to form a special tribunal to prevent water pollution and retention of water resources.

"The tribunal will take steps to assess damage caused by wasting water, try the violators of the act and collect fines," he added

He said the price of water would be fixed to ensure government's control over water.

“Govt nods draft anti-water wastage law”, 21/05/2012, online at: http://bdnews24.com/details.php?id=225021&cid=2

BACK TO TOP

Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

❖ World Bank publishes report on Arab water reuse

Total water reuse in the Arab world is estimated at 2,170 million m³ per year, according to a report just published by the World Bank summarising the findings of the Expert Consultation Meeting on Wastewater Management in the Arab World, convened in Dubai in May 2011.

The publication, *Water Reuse in the Arab World: From Principle to Practice*, says that Egypt, Syria, the United Arab Emirates and Saudi Arabia are the largest users, accounting for 75% of the Arab region in term of total domestic water reuse.

Pervasive water scarcity, urbanization and the increasingly obvious impacts of climate change have led to a shift in local perceptions of the importance of properly capturing and using reclaimed water. Today, says the report, water reuse is regarded by most Arab nations to have great potential in significantly increasing available water resources.

Arab states currently produce an estimated 10,800 million m³ per year of wastewater, of which approximately 55% is treated and 15% reused in agriculture, landscape irrigation, industrial cooling and environmental protection. In some countries, water reuse in groundwater recharge is further used to protect freshwater.

The objective of the 2011 meeting, organised by the Arab Water Council, the International Center for Biosaline Agriculture and the Islamic Development Bank, was to quantify the status and lessons learned on water reuse in the Arab world.

The report summarizes principal messages and priorities on water reuse as communicated by Arab water experts in papers and presentations prepared for the consultation and provides an overview of the current status and future potential of water reuse, as described by local experts and institutions.

However, the publication stresses that it is "far from being an exhaustive treaty of the complex subject of water reuse".

In seeking to inform discussions across the Arab world, the report is structured round six common topics:

- Current status of water in the Arab world
- Basic economic considerations of water reuse
- Infrastructure investments to enable sustainable reuse
- Benefits of reuse in agriculture
- Sustainable cost-recovery models
- Elements of a successful national water reuse strategy

"World Bank publishes report on Arab water reuse", 21/05/2012, online at:
http://www.desalination.biz/news/news_story.asp?id=6534&channel=0&title=World+Bank+publishes+report+on+Arab+water+reuse

BACK TO TOP