



ORSAM WATER BULLETIN

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20 February- 26 February 2012

- ❖ **Eastern Turkey: Contributing Factors To Less Than Equitable Social And Economic Development**
- ❖ **Two more water wells opened in Somalia by Turkish workers**
- ❖ **Iraq: Call to adopt modern irrigation techniques**
- ❖ **Shahristani, Saadi discuss Iraqi-Iranian water MoU**
- ❖ **Ifraz water project short on funds**
- ❖ **Water worries: three million drink from mosul's poisoned river**
- ❖ **What Water Scarcity? Israel May Soon Have A Surplus**
- ❖ **Gaza Desalination Facility: Potential donors and financial coordinators discuss technical and financial aspects**
- ❖ **Web ballot on Dead Sea renovation launched**
- ❖ **Rain significant, but still below yearly average**
- ❖ **Major rise in Kinneret water levels prompts Israel water company to dismantle artificial dam**
- ❖ **City of Palestine working on major water break, water outages possible**
- ❖ **Interview with Israel's Energy and Water Resource Minister landau**
- ❖ **BUSI aims to educate students about peace, water relations with Jordan**
- ❖ **CIUDAD water management project to help save drinking water in Lebanon**
- ❖ **Effects of Climate Change on Water Resources**
- ❖ **Bentley highlights water solution at WaterWorld Middle East that is setting the pace for efficient and sustainable water systems in the region**
- ❖ **Oman Investing US \$2.9 Billion in 13 New Power, Water and Energy Projects Starting in 2012**
- ❖ **Water for Food Director: Local solutions for global challenges**
- ❖ **Improving desalination**
- ❖ **Need for strategic thinking**

-
- ❖ **Report: Sanitary drainage absent in 99% of poorest villages**
 - ❖ **No Ganges water beyond treaty**
 - ❖ **Water terrorism by India to overawe Pakistan**
 - ❖ **The Sahel's Complex Vulnerability to Food Crises**
 - ❖ **WENDY ELLIOTT: Who will speak up for Canada's water?**
 - ❖ **Is a healthy environment a human right?**
 - ❖ **Water & Business in Canada Part I: Building A Case For Deeper Commitment**
 - ❖ **Middle East's largest food congress starts in Dubai, highlights imports**
 - ❖ **Mountain Perspective and India's Water Policy**
 - ❖ **Ethiopia Says It's High Time To Implement Nile Co-operation Framework**
 - ❖ **Uganda: Egypt Okays Development Along River Nile**
 - ❖ **Countries debate Nile River plans**
 - ❖ **Experts oppose draft water policy**
 - ❖ **Bahrain's new power, water plant starts op**
 - ❖ **World Water Council Taps Grayling For International PR Brief**

❖ **Eastern Turkey: Contributing Factors To Less Than Equitable Social And Economic Development**

Whilst Turkey's economy is growing at near equal pace with China's, its eastern half is still not yet reaping the benefits of a prosperous economy to the same degree as the rest of the country. A larger proportion of the populace in that part of the country lives below the poverty line. The region lags far behind the rest of the country, due to the prevalence of a system of social values incompatible with those of the modern world. Most women are forced to stay at home and fulfill their traditional roles instead of being allowed to study or work outside of the home. It is therefore little wonder that the path of development has been a difficult one for the region to follow.

Even though the Turkish economy is among the fastest growing in the world, the development gap between its western and eastern regions has become a serious cause for concern. Solving this problem should become one of Ankara's main priorities if it wants to fulfill the criteria for entering the European Union (EU) – and achieving the living standards of a developed country. Turkey is geographically divided into 7 regions: Marmara, the Aegean littoral, the Mediterranean littoral, Central Anatolia, South East Anatolia, East Anatolia and the Black Sea littoral. However, this division doesn't make political sense, as it just creates, rather randomly, an unnecessary – and rather inefficient – provincial administrative level between the national and municipal ones.

Of all Turkish regions, East and Southeast Anatolia are the poorest, having the lowest per capita consumption and revenue, education levels (particularly amongst women), as well as the lowest number of doctors and teachers per capita in the country. Furthermore, these administrative regions have been the most affected by the ongoing conflict between the Turkish state and the Kurdistan Workers' Party (PKK). Since the 1980s, violence and oppression in the education and business sectors have rendered social and economic development initiatives almost redundant, and thus these regions have become a stagnant backwater.

In 1998 alone, approximately 4,400 primary schools in these regions remained closed for the whole year due to security problems and a severe shortage of teachers, most of whom are simply unwilling to work in such inhospitable conditions. The industrial sector is still strained, as most businessmen find it too risky to start up a new business or run an existing one in an area still subject to attacks and population displacement. Before being put behind bars in 1999, the leader of the PKK, Abdullah Ocalan, made a personal threat to the private sector, warning Turkish citizens and foreigners against making investments in southeastern Turkey.

South East Anatolian Project And Other Measures

The Turkish state is aware of the situation in East and Southeast and Anatolia but has paid too little attention to it, not even allocating adequate funds to bring about much needed improvements.

The only project Ankara has funded is the Southeast Anatolia Project (GAP, the Guneydogu Anadolu Projesi, in Turkish). GAP is a multi-sector integrated regional development project which aims to reduce regional development disparities and targets the little more than 9 million people living in southeast Anatolia. The project has been ongoing since 1977, but has yet to be completed. It gained speed only after 2002 and is now one of Prime Minister Recep Tayyip Erdogans' priorities, but the payoff at this time is not significant enough to fulfill its initial objectives.

Originally, it was proposed, under the plan, to exploit waters of the Euphrates and Tigris rivers to build Turkey's largest dam and irrigation system., Since its inception, this gigantic scheme has experienced standstill periods and gone through many revisions. It almost fell into oblivion in the 1980s following the coup d'état and subsequently failed to meet its initial targets and timescales. Today it takes the form of a social and economic development plan covering 75,358 square kilometers of Turkish territory in nine provinces: Adıyaman, Diyarbakır, Batman, Gaziantep, Mardin, Kilis, Siirt, Sirnak and Sanliurfa. Under the Justice and Development Party (AKP) government, the share of public funds underwritten to the project has increased year on year, reaching 7.1% of the national budget in 2007.

The paradox is that although the southeast of Turkey is the least developed region, it is indisputably the richest in natural resources. For example, it accounts for 99% of the country's crude oil production and for 100% of its asphalt, phosphate and flint production. Although GAP is supposed to stimulate East Anatolian development and improve access to the natural resources of the territory, the major outcome of the scheme has been that these natural resources continue to be sent to the more industrialized regions, that is, those in Western Turkey. The Turkish authorities' greatest challenge is to find efficient ways to utilize these resources locally rather than sending them away to be used for value-added production.

Education, Economy And Migration

The underdevelopment of Anatolia has many underlying causes. Foremost amongst these is the low level and quality of education in that part of the country. Schools, teachers and students are scarce, as most parents believe it is more useful to put young men and women in the fields rather than have them "waste time" in a classroom. Each young Turkish teacher is usually sent to these regions for the

first year of his/her career, right after graduation, and finds him/herself in front of a group of children with a quite different socio-economic background and set of linguistic skills from his/her own, and those he/she is used to encountering. In Turkey's east and southeast rural areas most children who enter primary school have only spoken Kurdish up to that time; they are hearing the Turkish language for the first time in their lives. On their first day at school they are met by an inexperienced teacher, fresh out of the training program, who is not up to such a difficult task. Most often they are clueless about the local culture and language, and will begin the lesson by quoting the famous Turkish national motto: "How happy is the one who says he is a Turk." The same teacher, after a year of service, will probably relocate to a more developed western region and teach in a better managed and equipped school, thus leaving the same problems behind for the next teacher.

There is a direct link between the low level of education and the level of development in Eastern Turkey. Most of the people living there gain their education, a meager "cultural capital," from what is passed on to them by their nuclear family. Agriculture remains the most important economic sector, but this too is underdeveloped, as farmers lack experience of, and are resistant to, new technologies and practices. Wise use of natural resources is not common and there are many problems with the supply and proper use of water for agricultural purposes or household.

All these problems combine to create a climate of poor business initiative, stagnation in infrastructure development and widespread social poverty. In 1997 per capita income in southeast Anatolia was half the national average. This region, which accounts for roughly 10% of the country's territory and population, accounted for only 5.3% of its Gross Domestic Product (GDP). As a result, employment levels are very low and the industrial sector is almost nonexistent.

According to government figures, the percentage of people employed in industry in 2003 was 25% in Marmara (the western region), 7% in Southeast Anatolia and 3.6% in Eastern Anatolia. On the other hand, the percentage of workers employed in agriculture was 25.33% in Marmara, 61.35% in Southeast Anatolia and 66.41% in East Anatolia. Also in 2009, GDP per capita (in dollars) was \$1,653 in Marmara, \$593 in Southeast Anatolia and \$523 in East Anatolia. One can reasonably affirm that these numbers have not been significantly modified by more recent higher growth rates in Turkey.

The parochial mentality of the people of Eastern Anatolia is another factor underlying its underdevelopment. A sort of feudal system still prevails in that region: The 1995 census showed that 82.2% of the local people did not own any piece of land, while a group a Turkish citizens in that region, representing only 17.8% of the regional population, owned large chunks of land.

Traditional family structures are also predominant in domestic life. The level of education among women is still extremely low. Early marriage is very common, as is polygamy, although this practice is forbidden by Turkish law. Overall, the prevalence of social and cultural tradition and the poor quality of education continue to be the greatest obstacles to human development. For that reason, public policies should not be strictly oriented towards economic growth and production but also towards human development.

As a consequence of the traditional lifestyle, Southeast Anatolia has the highest reproduction rate in Turkey. Indeed, its share in the overall population of the country has increased continually since 1945, when it was recorded as 6.24%. By 2007 this figure had reached 10.2%. These numbers are based on place of birth, but migration must also be taken into consideration, since one of the most common phenomena in the region is young people leaving for the major urban centers in search of jobs.

There are few developed cities in East and Southeast Anatolia. One is Gaziantep, which has been undergoing rapid economic development over the last few years, with resulting inward migration. However, this trend has not resulted in the migrants integrating with urban dwellers. Most commonly, Eastern Anatolians who move to major cities live on their outskirts, in their own communities, far from the infrastructures and institutions of everyday urban life. What we see is the “ruralization” of the city, as the incomers continue to live in the rural way, maintaining their traditional culture. Approximately 50% of Anatolian city residents are settled in districts with inadequate or no infrastructure, lacking such basic municipal services as clean and regularly supplied drinking water and adequate drainage and waste disposal equipment.

The biggest cities (Ankara, Istanbul, Izmir) account for the largest wave of migration. The largest wave of migration is to the larger cities: Ankara, Istanbul, and Izmir. This social drift – and brain drain – also contributes to the impoverishment of the eastern rural regions and to the challenge of designing and implementing social and economic development policies in Eastern Turkey.

Tourism and Economic Disparity

Since the 1990s, tourism has been a fast developing sector of the Turkish economy. However, this sector also has its problems, as not only is a tourist income disparity between the regions evident but government policies and investment have helped intensify it. After the 1980 military coup d'état the Turkish government adopted a series of short-term measures to soothe the economic crisis hitting the country. To encourage tourism, the government identified in its Tourism Incentives Act of 1982 some “tourist zones” suitable for infrastructure investment. However, the “zones” that received these

investments were the ones that already had the highest level of production, and are still today the most developed and prosperous: the Marmara, Aegean and Mediterranean coasts. Millions of foreign tourists, from all around the globe, visit these historic regions, while a few of them have heard of Samsun, Gaziantep, Van or Diyarbakir, or will enter Turkey with the idea of visiting such places. On the other hand, some tourist attractions in Eastern Turkey have recently opened or been upgraded for domestic tourists. These include the ski resorts of Sanliurfa, Siirt and Mus.

In recent years, and particularly since the AKP has been in power, more attention has been paid to the development of South and Southeast Turkey. The GAP project is expected to be completed within two or three years and, if its work is conducted in an organized and efficient way, it might change the lives of many Anatolian plateau residents.

Eastern Turkey is not solely handicapped by economic problems. The region lacks social and cultural development as well. Narrowing the education gap, integrating local cultures and providing the locals with the knowledge and tools to plan and conduct their own development are the necessary conditions for achieving real integration. Investing in social infrastructure is also imperative, as this will discourage the current pattern of out migration which makes it even harder to achieve stability and sustainable economic growth in the region.

GAP does not address enough of the problems of the socially and economically disadvantaged Turkish regions. The province of Van (which was struck by a violent earthquake in October 2011), like all the other provinces of Eastern Turkey, are still excluded from the project, as they are too far from the Tigris and Euphrates, the original but no longer relevant focus of GAP. No alternative plans have been made for these areas, but it is to be hoped that the earthquake may now awaken some degree of understanding and sense of responsibility towards these people and regions in the Turkish government.

Eastern Turkey: Contributing Factors To Less Than Equitable Social And Economic Development – Analysis, Richard Rousseau, 23/02/2012, <http://www.eurasiareview.com/23022012-eastern-turkey-contributing-factors-to-less-than-equitable-social-and-economic-development-analysis/>

BACK TO TOP

❖ Two more water wells opened in Somalia by Turkish workers

The wells were the latest of a series of others that provide water for a total of 126 thousand Somalis living in tent sites in Mogadishu, Ismail Sevim, the project manager, told the Anadolu Agency.

Turkey's water works agency has opened two more water wells in a Mogadishu refugee camp that houses 20 thousand Somalis who fled drought and violence to the country's capital as part of continued Turkish relief efforts.

The wells were the latest of a series of others that provide water for a total of 126 thousand Somalis living in tent sites in Mogadishu, Ismail Sevim, the project manager, told the Anadolu Agency.

"People living in this camp had to carry water from another well two kilometers away. Now they are happy that they have their own water," said Mehmet Citil, Somali coordinator of the Turkish charity organization Helping Hand.

"Two more water wells opened in Somalia by Turkish workers", 22/02/2012, online at:
<http://www.worldbulletin.net/?aType=haber&ArticleID=86158>

BACK TO TOP

❖ Iraq: Call to adopt modern irrigation techniques

Baghdad, Iraq (IRIN) – Fluctuating water levels in the Tigris and Euphrates rivers, Iraq’s primary sources of surface water, will continue to mar agricultural development unless more equitable water access rights are agreed with neighboring countries and modern irrigation techniques are more widely adopted to reduce wastage, says a government official.

“Iraq must take a legal step with the [help of the] UN and international organizations and community to determine its water rights with these countries… We must start using modern irrigation technology as we are still using the old, traditional ways which waste huge amounts of water,” said Abdul-Razzaq Jassim Hassoun, head of the Planning Ministry’s Agricultural Statistics Department.

The Ministry of Agriculture was promoting modern irrigation systems, particularly drip and sprinkle irrigation systems. Sprinkler irrigation would need 4-6 years to complete, but could save 3.6 billion cubic meters of water a year, said Deputy Agriculture Minister Riadh Al-Qaisi.

Since 2003, Iraq has tried to reach agreement with Turkey, Syria and Iran over water allocations but nothing has been agreed. The three countries argue that their increasing need for water due to drought makes it impossible to reach an agreement, and they urge Iraq to adopt modern irrigation techniques, instead.

In December, the Iraqi Cabinet authorized the minister of foreign affairs to lead negotiations with Turkey and Syria on a water-sharing agreement, but so far no meetings have been held, according to Water Resources Ministry spokesman Ali Hashim; he mentioned that on 20 February Iraq signed a non-binding Memorandum of Understanding with Iran to activate already existing joint committees on water issues. “We hope this will lead to agreements in the future,” he said. The minister was also planning a visit to Turkey “very soon”.

Dam construction

“What is clear now is that water resources in Iraq mainly from the Tigris and Euphrates rivers are continually decreasing due to huge dams being constructed in Turkey and Syria,” said the Planning Ministry’s Hassoun.

According to the Water Resources Ministry, 22 dams and’ hydro-power plants have been constructed on the Euphrates in Turkey, while five dams have been constructed in Syria. Iraq has seven dams on the river.

Since 2003, water flow rates in the Tigris and Euphrates have fluctuated significantly, the Planning Ministry said in a recent report. The highest flow rate on the 2,700-kilometer-long Euphrates averaged 27.4 billion cubic meters in 2003, before it went down to its lowest level of-.7 billion in 2008, increasing to’.3 billion in 2010.

On the 1,900-kilometer-long Tigris, water flow averaged 49.48 billion cubic meters in 2003. This decreased to its lowest level of 20.37 billion in 2008, before increasing again to 47.7 billion in 2010. The river has two tributaries entering Iraq from Iran.

Marshlands

The fluctuating water levels, along with oil development and agricultural plans have also adversely affected the recovery of Iraq's southern marshlands, the report said. The marshlands (in the provinces of Nassiririya, Mayssan and Basra) covered 8,350 square kilometers in the early 1970s but had shrunk by 90 percent by 2003 after Saddam Hussein's retaliatory attacks on Shia communities in the region. They recovered 63.4 percent of their area in 2006 and increased to 70.1 percent of their area in 2008, but went down to 45 percent by 2010, the report added.

According to the UN, water levels in the two rivers have fallen to less than a third of normal capacity since 2003; 20 percent of households in Iraq use an unsafe drinking water source, and 16 percent report that they have daily problems with supply.

In rural areas, only 43 percent have access to safe drinking water, and water for agriculture is often scarce and of poor quality – a situation that has caused many to leave their rural communities in search of water and livelihoods, increasing urbanization, the UN said in its 2011 fact sheet on water in Iraq.

Effect on agriculture

The decreased water levels in the two rivers, lack of rain and high levels of soil salinity have greatly affected Iraq's agriculture and animal resources, according to Al-Qaisi.

Since 2007, Iraq has been forced to reduce the number of hectares used for rice, wheat and vegetable cultivation due to water shortages, al-Qaisi said. Since 2008, the area where rice is cultivated has been restricted to the provinces of Najaf, Diwaniya and Muthana.

According to Trade Ministry figures, Iraq consumes slightly over 1.2 million tons of rice a year yet last year's production stood at only 83,000 tons. The country also consumes 4.4 million tons of wheat a year, of which only about 1.75 million tons is produced locally.

"Call to adopt modern irrigation techniques", 22/02/2012, online at: <http://gantdaily.com/2012/02/22/call-to-adopt-modern-irrigation-techniques/>

BACK TO TOP

❖ **Shahristani, Saadi discuss Iraqi-Iranian water MoU**

BAGHDAD: Iraqi Deputy Premier for Energy Affairs Hussein Shahristani discussed today with Minister of Water Resources Muhanad al-Saadi the terms of a Memorandum of Understanding (MoU) signed with Iran, according to a statement issued by Shahristani's office.

"The agreement stipulated that the Iranian side should control the agricultural drainage near the Iraqi borders and prevent run-off into Iraqi territories," the statement received by Aswat al-Iraq pointed out.

The agreement stipulated both countries should benefit from the joint border rivers, and that both sides will mutually determine the sources of pollution in Shatt al-Arab, Basra, in order to minimize pollution and take the necessary measures to control it.

"Shahristani, Saadi discuss Iraqi-Iranian water MoU", 21/02/2012, online at:
<http://www.zawya.com/story.cfm/sidZAWYA20120222041000>

BACK TO TOP

❖ Ifraz water project short on funds

The six-year, U.S.-funded project remains unfinished

Without government control, a water crisis may well be in Erbil's future.

The US government funded the Ifraz drinking water supply project to address the water shortage issue and the increasing water demand in the Region's capital city of Erbil. But the funding was not enough to fully complete the project.

The cornerstone of the project, located in Ifraz, Kalak District, some 30 km west of Erbil, was placed in 2006. Since then, only 60% of the project has been completed.

Officials at the Kurdistan Regional Government's Ministry of Agriculture and Water Resources estimate the funding needed to complete the project to be US\$50 million. For this purpose, they are engaged in negotiations with a Japanese bank to fund the remaining 40% of the project, and they submitted a request to the central government to allow them to enter into this agreement, but the request was not answered.

The capacity of the completed part of the project is 10,000 cubic meters per hour, while the city needs 20,000 cubic meters per hour. If completed, the project is expected to supply the needs of the entire city and put an end to the water shortage in Erbil till the year 2035.

Prior to the implementation of the project, Erbil completely depended on underground water drawn from a total of 850 deep-water wells around the city. Some 98 of these wells have been completely closed and replaced by the Ifraz water.

Director of the Erbil Water Directorate Massoud Kakarash says that currently the water of 150 wells is wasted by consumers due to lack of control over water usage. "This issue cannot be solved without installing water meters and charging consumers for the amount of water they consume," explained Kakarash in an interview with The Globe.

Kakarash argues that if the funds used to dig deep-water wells were used to complete the Ifraz project, it would supply more water than the wells. "Erbil is expanding very fast, and new neighborhoods are being developed," Kakarash told The Globe. "We dig 30 wells annually for those neighborhoods, each of which costs 50 million Iraqi Dinars [approximately US\$42,000], in addition to the running and management costs for each well. If this money is spent on the Ifraz project, it would be more efficient."

The cost of digging wells increases daily even with the amount of underground water constantly decreasing and reaching it becoming more difficult. In a majority of locations throughout Erbil, one must dig 140 meters to reach water nowadays.

Households in Erbil currently do not have water-meters to control the amount of water consumption and calculate the charges. The Ministry of Agriculture and Water Resources charges only a minor fee based on the size of the house.

Othman Mohammed, 38, who lives in a house of 120 square meters with four other family members in Mahabad Quarter, south of the city, pays 750 Iraqi Dinars (US\$0.60) per month for water.

"If we consume a liter or thousands of liters, it would not change anything; we still pay the same amount every month," Mohammed tells The Globe. "A couple of years ago, we heard that they were installing water meters and the price of water would increase; but nothing has changed to this day and we still do not have a meter."

Hawre Tahsin, 20, a university student, believes that the government and NGOs should raise public awareness about water usage. He says, "Our people should be taught to save water and not waste it; we will run out of water if we continue this way."

Yasameen Mahmoud, a high school teacher, believes that the best way to control the situation is by increasing the cost of water. "Only then will you be able to force people to save water." He says, "This will definitely work the same way it has with electricity, when the Ministry of Electricity increased its price a couple of years ago."

Mahmoud concluded that they do not waste more water than electricity at home because they are paying for electricity, but water is "almost free of charge."

"Ifraz water project short on funds", 25/02/2012, online at: <http://www.kurdishglobe.net/display-article.html?id=7605D29D0805B41C71F9192FE8060A8F>

BACK TO TOP

❖ Water worries: three million drink from mosul's poisoned river

One thing the troubled city of Mosul doesn't have to worry about is water: the River Tigris flows through it. However, as pollution levels go up, fish die and waste is dumped there, that may soon change.

One of the problems that the oft-troubled northern city of Mosul does not have is a water supply. The Tigris River passes through the city, the capital of the state of Ninawa, dividing it into two coasts. And as it passes through, the river's waters are used by a wide variety of businesses and private households on its banks.

The local sewage department estimates that there are 172 sources of sewage pouring about half a million cubic meters of waste water into the river daily, including waste water from private households and factories, some of which are state-owned.

On the banks of the Tigris, there are a number of construction sites, industrial areas and one large medical complex. Various types of liquids and solids find their way into the river, some of them dangerous, many of them untreated and polluting. In the past, reports have suggested that medical waste was being thrown directly into the river – even though the local health department denies this.

“One of the biggest cities in Iraq after Baghdad, and Mosul doesn't even have a real sewage system,” the head of the local sewage department, engineer Anwar Ammar, complained. “The current system was designed to collect rainwater but now it's used to dispose of industrial, commercial and residential wastewater. There is only one real sewage system in two small residential compounds,” he added.

Some of the first to draw attention to the problems the local populace is facing as the Tigris gets more polluted, were local fishermen. There's been a decrease in numbers making a living this way and the federal Ministry of Agriculture published a report indicating that fish stock numbers were falling right around Iraq, and that the main cause was water pollution.

“The quality of the river waters has been worsening for some time – because there's less water in the river, the changes in river temperature and the increased amount of floating oil slicks and other waste,” local fisherman Abu Ali, 50, said. “Fish are not coming into the river anymore. Ten years ago fish from the Tigris, especially the carp, were sold all over Iraq,” he noted.

Aware of the seriousness of this issue, the local government formed a committee in August 2011 to assess the levels of pollution in the Tigris River. The committee confirmed that around 100,000 tons of salt and chemicals were finding their way into the river every year. Crude oil, and crude oil derivatives, from the Kasak area in western Mosul, were also finding their way into the river.

Dried animal dung was entering the river around the Badush area, through which the Tigris flowed, and there was also an impact from heavy metals coming from a former military installation upriver. Cadmium, which can cause a variety of health problems, was a particular issue.

Reports from the province's water department, sighted by NIQASH, mention other reasons for concern. Untreated wastes from cities north of Mosul – Zakho and Dohuk – end up in the Khabur River, which then flows into the Tigris.

Unfortunately the main water purification plant serving Mosul's population for drinking water is located on the Tigris River. "The river is at risk and those concerned with water purification must rely mainly on chlorine for purification processes," Mohammed al-Ghannam, the chairman of Mosul's environment and health committee, explained. As al-Ghannam, who is an ophthalmologist by profession, pointed out: "this has an impact on people's health".

Additionally, he said, diseases like cholera were spreading and kidney disease and allergies were on the rise too. "If river pollution is not controlled there will be serious consequences," he said.

Local power stations were also having an impact. "Thermal power stations cause pollution too because they use water for cooling their motors, and this too affects the water ecology," Fakhri Yassin, a professor of engineering at Mosul University, explained. "The sand and gravel quarries on the upper side of the river have also contributed to pollution because they've increased the amount of plankton in the river. This in turn leads to an enormous consumption of oxygen in the water. And that is why medium sized and larger fish have become rare in the river."

The local committee tasked with researching the issue concluded by saying that waste shouldn't be dumped into the Tigris, if it hadn't been treated according to generally accepted international standards. The committee also suggested that special regulations be introduced to ban the dumping of untreated solids and liquids. It also suggested more sophisticated water purification methods, banning quarrying activities around the river and, most importantly, initiating the construction of a real sewage network for Mosul.

Unfortunately over two months have passed since the committee made these suggestions and up until now, no further action has been taken.

And despite all of the evidence that the Tigris River and its tributaries were becoming more and more polluted, local government departments still seem to prefer to play things down.

According to official statements from local departments of water and the environment, more than 3 million people rely on the river for drinking water. The undeclared intention of that statement, according to critics: they're drinking it and they're not dead yet.

This story was prepared as part of the Media academy Iraq's [mentorship programme](#) for young Iraqi journalists, together with NIQASH's regular correspondents around Iraq. The mentor for this story was regular NIQASH contributor Saleh Elias.

"water worries: three million drink from mosul's poisoned river", 22/02/2012, online at:
<http://www.niqash.org/articles/?id=2998>

BACK TO TOP

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❖ What Water Scarcity? Israel May Soon Have A Surplus

As warnings increase about the world's dwindling water supply, predictions of a future surplus come from an unlikely source — drought-stricken Israel. The optimistic picture was painted by Israel's national water company, Mekorot, during a recent meeting commemorating the company's 75th anniversary, reported on by Ynetnews. Seawater desalination, according to Mekorot, will allow Israel to rehabilitate of all its freshwater reservoirs and enjoy a substantial surplus within eight years.

If realized, the surplus would put Israel in the enviable position of being a water exporter in a time of heightened water scarcity. In an article released by the Israel Ministry of Foreign Affairs touting the country's leading role in desalination, former Mekorot CEO Booky Oren noted that Israel — a country that is two-thirds arid — aggressively pursued desalination out of necessity. "All the population here is increasing and the demand for water is increasing," he said. "This is the force that caused Israel to reinvent itself."

Though the outlook is positive for coming years, Israel is currently short on its current water supply due to several successive dry winters — a fact that both reinforces the need for desalination and makes more impressive the notion of a surplus.

Israel's projected water surplus is attributed not only to Israel's desalination facilities — currently producing 600 million cubic meters of water per year — but also to the replenishment of the existing freshwater reservoirs and the reduced pumping of the coastal aquifer.

Mekorot stated during the meeting that over-pumping of the aquifer has caused treatment challenges due to the increasing salination of the groundwater, according to an article on Haaretz.com. The latest report of the Hydrological Service of Israel indicated that just 39% of the aquifer was of good quality, and 11% was unusable.

Despite the challenges, Mekorot, which supplies roughly half of Israel's water, announced that the quality of its water has drastically improved over the past two decades, and now far surpasses the standards set by the World Health Organization (WHO). While WHO recommends a 5% limit for disease-causing bacteria and parasites, only 0.07% of Mekorot samples taken in 2010 turned up such contaminants — compared to 6.5% in 1991. Furthermore, only 0.03% of samples found evidence of chemical pollution.

Another improvement spanning two decades — and the key to Israel's change of fortune from water-starved to (potentially) water-rich — is the cost of the water that the country produces. Oren, the

former Mekorot head who is now chairman of Israel's WATEC conference and expo, explains that the price of water has gone from \$2 per cubic meter 20 years ago to 50 cents per cubic meter today. He credits ingenuity — specifically better ways to recycle water and reduce energy — as catalysts for Israel's emerging status in the world water market.

That forward-thinking may soon pay dividends for Israel. In a region with plenty of sand, Israel has refused to stick its head in it when it comes to water scarcity.

What does this projection say about Israel's position in the world water market? What can be learned by the country's ventures into desalination? What would an Israeli water surplus mean from a geopolitical standpoint? Please share your thoughts below...

“What Water Scarcity? Israel May Soon Have A Surplus”, 21/02/2012, online at:
<http://www.wateronline.com/article.mvc/Israel-May-Soon-Have-Water-Surplus-0001>

BACK TO TOP

❖ **Gaza Desalination Facility: Potential donors and financial coordinators discuss technical and financial aspects**

Representatives of international financial institutions (IFIs), the European Commission and the Norwegian government gathered last week at the Union for the Mediterranean (UfM) headquarters in Barcelona to discuss a technical update for the Gaza Strip Desalination Facility project, as well as progress towards financial commitments.

A press release said that the preliminary technical and financial coordination meeting, which brought together representatives of institutions including the country director of the World Bank to the West Bank and Gaza Strip, the Islamic Development Bank, the European Investment Bank (EIB), the World Bank, the European Commission and a representative of the Norwegian Ministry of Foreign Affairs confirmed the stakeholders' interest in establishing a multi-donor implementation mechanism for the Desalination Facility for the Gaza Strip project.

As the project promoter, the Palestinian National Authority was represented by the Palestinian Minister and Head of the Palestinian Water Authority, Dr. Shaddad Attili, and the Deputy Head Rebhy El-Sheikh.

This was a chance to assess the state of play as regards fund-raising efforts and the way forward, both from a financial and technical point of view. The EIB took the opportunity to inform participants about its ongoing technical assistance in terms of organising the best conditions for the implementation of the project and the timeline of their advice for the project ahead of the bid-launching process.

The three major IFIs (EIB, World Bank and IsDB) have agreed to coordinate among themselves to establish the optimal financial mechanism to encourage and manage donors' contributions to fund the project. (ENPI Info Centre)

"Gaza Desalination Facility: Potential donors and financial coordinators discuss technical and financial aspects", ENPI, 22/02/2012, online at: <http://mideastenvironment.apps01.yorku.ca/?p=4438>

BACK TO TOP

❖ Web ballot on Dead Sea renovation launched

Public can now vote on what shape the NIS 833 million rehabilitation of the Dead Sea will take in the coming years.

The Dead Sea By Marc Israel Sellem

The Tourism Ministry on Tuesday launched an online ballot where the public can vote on what shape the NIS 833 million renovation of the Dead Sea will take in the coming years.

The public will be able to chose one of three options: desert scenery; “on the water getaway”; or commercial and recreational vacation.

Under the desert scenery option, new hotels would be built to blend in with the natural surroundings, and would highlight the desert landscapes of the Jordan Valley.

With the “on the water” option, new hotels would jut out into the Dead Sea and would emphasize water activities and spa treatments.

The commercial and recreational option would emphasize the construction of retail outlets and recreational facilities.

The ballot is the continuation of a plan announced last Sunday, wherein the government will invest NIS 833 million on rehabilitating the Dead Sea, including NIS 700m. for developing the tourist infrastructure of its southern half.

The developments will be built in the area between Ein Bokek, toward the southern end of the Dead Sea, and Ein Zohar further north.

“Web ballot on Dead Sea renovation launched”, Jerusalem Post, 23/02/2012, online at:
<http://mideastenvironment.apps01.yorku.ca/?p=4453>

BACK TO TOP

WWW.ORSAM.ORG.TR

❖ **Rain significant, but still below yearly average**

Weekend's precipitation had visible effects upon North, where rainfall increased river flow in the Kinneret, Western Galilee.

While snow failed to coat the streets of Jerusalem this weekend – despite the wishes of the Mayor Nir Barkat – it did hit much of the North.

The northern Golan Heights received 20-25 centimeters of snow, according to the Israel Meteorological Service. In the Galilee, as well as some mountainous portions of the country's center such as Hebron and Gush Etzion, several centimeters of snow also fell, the IMS reported. About 14-18 cm. of water drenched the Golan and the northern Galilee.

Although the Education Ministry did not have details about individual school closures due to snow, the Safed Municipality website said that school in the city and surrounding Upper Galilee region was in session as normal on Sunday.

Mount Hermon skiing, however, was still closed on Sunday due to the ongoing snowstorm, but every effort was being made to reopen the site on Monday, which would occur pending sufficient snow removal, according to the mountain resort's website.

Meanwhile, rainstorms engulfed the North, Center and northern Negev throughout the weekend, and the precipitation caused a 16-cm. rise in Lake Kinneret (the Sea of Galilee), leaving the basin at 212.67 meters below sea level on Sunday morning, the Water Authority said. Although the ample rain this weekend is encouraging, as the Kinneret is now 33 cm. above the bottom red line, the basin is still missing 3.87 meters, according to Water Authority spokesman Uri Schor.

"This section of rain was the most significant rain that we had in February up until now," Schor told *The Jerusalem Post*.

Aside from heavy rains, the country's central region also received exceptionally strong winds, which occurred at speeds of up to 60-80 kilometers per hour, with gusts of up to 100-110 kilometers per hour, IMS data said.

The weekend's precipitation had visible effects upon the North, where rainfall increased river flow in the Kinneret and Western Galilee region, Schor explained. Though ample, the Center and northern Negev received much less rainfall than the North this weekend, with Jerusalem getting about 8.4 cm. and Beersheba about 2.8 cm., according to the IMS.

Ashkelon only received 1.1 cm., Schor said.

While the rains were significant, the country is still under the yearly average rainfall, he stressed.

"We are close to the average, but the average is not enough," Schor added.

Due to the seven years of drought that have led to this season, the country's water demand exceeds the average amount of rainfall, according to Schor.

“But it was wonderful weekend,” he said.

“Rain significant, but still below yearly average”, 20/02/2012, online at: <http://www.jpost.com/Sci-Tech/Article.aspx?id=258521>

BACK TO TOP

❖ Major rise in Kinneret water levels prompts Israel water company to dismantle artificial dam

After the particularly rainy winter that took Israel by storm this year, there will no longer be a need to artificially raise the water levels of the Kinneret.

The rainy winter Israel has experienced this year has led to a vast rise in the Kinneret's water levels, prompting the Mekorot Water Company to dismantle an artificial dam it had been using to enable pumps to reach the water.

The Kinneret's water levels have risen by 2.5 centimeters in just the past 24 hours, and the month of January saw the highest number of rainy days in one month on record in Israel, according to figures from the Israel Meteorological Service.

Though the Kinneret is still 3.74 meters below its maximum level as of Thursday, the lake's water levels continue to rise by 2 centimeters daily, and renewed water flow through the streams feeding the Kinneret, as well as meltwater from recent snowfall, are only expected to facilitate this increase.

A clear indication of the Kinneret's improved condition could be seen on Thursday as Mekorot Water Company employees dismantled an earth dam constructed during the summer of 2008 on the lake's Jordan River outlet, in order to enable the company's pumps to reach the lake's water. Water levels in the Kinneret were so low that Mekorot's pumps, situated at the Kibbutz Degania dam, could no longer reach the lake's water.

According to Alon Lev, Mekorot's Galilee District Manager; an earth dam was constructed below Kibbutz Degania Alef in order to create a new pool of water between this new dam and the Alumot Dam to the south, into which the water from the Kinneret was pumped. Water levels in this "pool" were therefore raised artificially, allowing Mekorot pumps to reach them.

Israel Water Authority Spokesperson Uri Schor stated that he hoped that this "dismantled dam will not be built again."

"We are hoping for higher [Kinneret] water levels," said Schor, "and this is facilitated by the public's efforts in saving water as well as the desalination plants which are getting into full swing. Hopefully this will help us rehabilitate our water sources and operate them differently after years of [working with] water levels below the Kinneret's red line."

"Major rise in Kinneret water levels prompts Israel water company to dismantle artificial dam", 23/02/2012, online at: <http://www.haaretz.com/news/national/major-rise-in-kinneret-water-levels-prompts-israel-water-company-to-dismantle-artificial-dam-1.414464>

BACK TO TOP

❖ City of Palestine working on major water break, water outages possible

PALESTINE — City of Palestine Public Works employees were working on a large water break late Saturday that disrupted water services for some Palestine residents. Work continued of press time Saturday and was unknown when it will be repaired.

“Some residents are still without water in the Upper Lake area and those on the west side of town,” City of Palestine Emergency Management Coordinator Schelby Wells said Saturday night. “Ever since this occurred, we have had city crews working and they will continue to work until the situation is repaired,” she said.

Due to a high volume of calls to the Palestine Police Department and 911 Saturday about the water outage, Wells asked citizens not to call in order to keep the lines free for those who are in an emergency situation.

“I do ask that people check on their neighbors, especially if they are elderly or are special needs and possibly help them get to a friend or relative’s place in another area of town that does have water,” Wells said.

As of Saturday night, there was no word on whether a boil notice would be issued.

“Whether there is a boil notice issued all depends on the water pressure caused by the leak. If there is a boil notice, we will use our Code Red notification system to let everyone be aware,” Wells said.

Code Red is a telephone notification system used to send critical communications to local citizens such as evacuation notices, storm alerts, missing child alerts and water outage information.

Those who have not signed up for Code Red can sign up online at www.cityofpalestinetx.com

The Palestine Fire Department did deliver water to Palestine Healthcare Center, a nursing home facility located on Tile Factory Road in the Westwood area.

“Situations like this is a good example of why we ask residents to be prepared to take care of themselves for 72 hours — 72 hours of water and food — in case of emergencies like these,” Wells stressed. “It’s very important to make personal preparedness a priority in your home.”

“City of Palestine working on major water break, water outages possible”, 25/02/2012, online at:

<http://palestineherald.com/localscene/x952193690/City-of-Palestine-working-on-major-water-break-water-outages-possible>

BACK TO TOP

❖ Interview with Israel's Energy and Water Resource Minister landau

Israel Energy and Water resource Minister Uzi Landau speaks on the cooperation with India in the energy sector, Israeli Minister also slams Iran for its alleged role in the recent terror attack on Israeli diplomat in New Delhi.

<http://www.youtube.com/watch?v=eWmg3m61UMg>

“Interview with Israel's Energy and Water Resource Minister landau” , 22/02/2012, online at:
<http://www.youtube.com/watch?v=eWmg3m61UMg>

BACK TO TOP

❖ **BUSI aims to educate students about peace, water relations with Jordan**

Water has served not only as a vital resource to humans, but also as the cause of conflict in certain regions, Tami Shor told a group of 12 Boston University students on Tuesday.

Students listened as Shor, a member of the Israel Water Authority spoke of the importance of water in relations among Jordan, Israel and Palestine.

Shor discussed Israel's water sector, the sources of water in the region, and the Israeli Palestinian conflict.

"A lot of Israel's water is not from natural resources," Shor said. "Israel reuses 72 percent of its water."

Because of a lack of natural resources, Shor said water has been a source of contention in certain regions. The Golan Heights, a territory Syria also claims, has water, which increases each nations desire for the land.

The presentation, hosted by BU Students for Israel, is part of the Israel Peace Week campaign to educate students about peace efforts and other facts involving the nation.

Shor also said the Gaza Strip faces water problems.

"There is a pipe [from Israel] to Gaza, but the valve is closed," Shor said. "In the past, the Palestinian Authority would not agree to buy the water from Israel and [treat the water] because they did not want to lose power in the negotiations."

The Palestinian Authority at one point received money to help them treat their water, but did not use the funds for that purpose, Shor said.

"The United States and parts of Europe stopped sending money after the Hamas victory," she said. Students for Justice in Palestine member Kareem Chahayeb said in a phone interview that there is not enough water in the West Bank and that the Israeli government "stole" the water.

"The reality [of the water in Israel is] far different from what's being portrayed," Chahayeb, a CAS junior, said.

BUSI members said they feel differently.

“The bottom line is Israel guarantees water to the Palestinian Authorities through the Oslo Accords that were signed in 1993,” Goldberg said. “As soon as the peace treaty was signed with Jordan, Israel has transferred since 1994 and will continue to transfer 50 million cubic meters of water to Jordan every year. So when the Palestinians are ready to make peace with Israel, Israel will be more than willing to transfer water.”

However, members of both groups said they agree that the lack of water is a serious problem for the Palestinians.

“People in the West Bank are living with under 20 liters of water a day. Which is terrible,” Chahayeb said.

“The Israeli people and the people of Palestine, it’s a tragedy really,” said CAS sophomore Sarah Close. “They’re being denied access to basic human rights including the same water privileges that Israelis have. I think the problem is more with the government.”

“It’s the first day of the week but today has been really successful, we engaged a ton of students and tried to educate people throughout the day about Israel’s peace treaty with Jordan,” Goldberg said. In a letter to the editor published in The Daily Free Press Tuesday, CAS junior Kristen Martin said Israel stole water from the Palestinians and destroyed Palestinian capacity for water. Martin also said BUSI attempted to “whitewash” Israel’s image, while ignoring international law and human rights organizations. She did not attend the presentation.

CAS junior Alex Alpert, vice president of BUSI, said Martin’s decision not to attend the presentation showed that she generalized rather than made “accurate” conclusions.

“As an Israeli, I think there’s a generalization of what our opinions are,” Alpert said. “The fact that [Martin] didn’t come here and actually attend our event and listen to us, just shows that they were making no effort to actually make conclusions that are accurate, because they are not even hearing the other side.”

Matt Goldberg, BUSI president, said Israel Peace Week is designed to educate students about what Israel’s global efforts towards peace.

“[It is] especially focusing on the Jordanians, as we talked about tonight and what Israel has done around the world globally to promote peace whether it be being the first field hospital in Haiti or donating aid to countries after the tsunami,” Goldberg, a CAS sophomore, said.

Chahayeb said he understands why Israeli Peace Week exists, even if it isn’t a stance he supports.

“This campus has people from all different walks of life,” he said. “In the end they’re going to have an event that promotes Israel.”

“BUSI aims to educate students about peace, water relations with Jordan”,22/02/2012, online at:
<http://dailyfreepress.com/2012/02/22/busi-aims-to-educate-students-about-peace-water-relations-with-jordan/>

BACK TO TOP

❖ CIUDAD water management project to help save drinking water in Lebanon

The first of 8 decentralized waste water treatment plants was inaugurated in the town of Baakline, Lebanon. The first results of collection and purification of “grey” water carried out by the EU-funded Urban Water Management project (WADI) in the Mount Lebanon governorate were presented at the meeting of project partners held in Baakline from 8 to 10 February. “Grey” water from washing and household activities is purified and used for irrigation, putting less pressure on drinking water supplies.

Moreover, the collection and purification process used in this project is low-tech and low-cost. Seven other plants planned in the project are under construction. The project hopes to use them to demonstrate the validity and applicability of the proposed solution both for improving sanitation and saving water.

The first results presented during the meeting aroused keen interest among the local institutions and associations involved in the management of wastewater as well as members of the press.

The WADI project, funded by the EU in the Framework of the CIUDAD programme, will help Lebanese and Palestinian partner municipalities train their staff on-the-job to develop surface water management and flood control plans (in Jericho) and decentralized wastewater treatment (in the Lebanese Chouf municipalities). It will also help implement selected pilot projects and work with NGOs to educate local communities about safe practices.

CIUDAD runs from 2009 to 2012 and co-finances 21 local grant projects in the Neighbourhood's South and East. The projects reflect the overall objective of CIUDAD and in particular the following themes:

- Environmental Sustainability and Energy Efficiency
- Sustainable Economic development and reduction of social disparities and
- Good governance and sustainable urban development planning. (ENPI Info Centre)

“CIUDAD water management project to help save drinking water in Lebanon”, ENPI, 22/02/2012, online at:

<http://mideastenvironment.apps01.yorku.ca/?p=4436>

BACK TO TOP

❖ Effects of Climate Change on Water Resources

While overuse of natural resources and degradations occurring as a result destroy natural system, it also poses a threat for the future of humanity. Globalization of environmental problems and their association with national security started to appear on agenda after 1970's. Due to transboundary characteristics of environmental problems, the aforesaid problems became problem of more than a single state. The necessity of cooperation for the solution among states, and the security considerations of states carried the issue of environment up to the position of primary policy in their international relations.

While the environment and security issues were handled together in Richard Falk's "The Endangered Planet", published in 1972, for the first time; the article of Lester R. Brown entitled "Redefining National Security", which was published in 1977, also addressed the issue of necessity to fight against the elements posing threat to world's natural system within the frame of traditional security understanding. The basis of environmental security works handle conflicts, which would be created as a result of resource shortage and environmental degradations in relations of states and communities, and solution processes within the agenda of international politics.

The most important environmental problem affecting the whole world at global level is global climate change. While human activities especially such as; use of fossil resources, increase in industrial activities, urban growth, have increased carbon emission in the last 20 years, as a result, it affects the components and rates within the structure of atmosphere.

According to the studies carried out, within the process of global climate change, arid regions will become more arid, and regions with mild climate will become milder. While the climate change, which affects averages of precipitation and temperature values, leads to heavy rain periods and overflows; decrease in precipitation rates across the regions such as Mediterranean basin, West America, South America, Northeast of Brazil and Middle Eastern regions, in which Turkey is located as well, increases the current water shortage. In addition to this, rise in temperatures also affects biological, chemical, and physical properties of lakes and rivers.

According to the studies of IPCC and UNEP; warming has largely affected hydrological cycle. While this change increases the amount of water vapor in atmosphere, it also changes precipitation parameters, and decreases snow covers as well as changing soil moisture and the runoff. While precipitation rates increase in high altitudes in the north, in 1970's the arid regions doubled. The amount of water in mountain glaciers is decreasing with each passing day. According to the predictions made for 2050, water whose quality and quantity has changed because of climate change, will affect food availability, balance, access and usage. While food security concern is on rise especially in arid regions, poor farmers will also be damaged by this situation.

As is known, only 2,5 per cent of water on the world is fresh water. The majority of this water, which is 35,2 billion cubic kilometers, is held in glaciers and underground water. Due to the insufficiency of water, which is not equally distributed in all regions of the world, in semi-arid and arid regions, it became such a level that affects the relations of states in these regions, and a level that leads to a security concern for each state. Especially in arid-semi arid regions, quantity of water per capita is under 1000 cubic meters, and in these regions, where water shortage is a problem, the current

population is 1,4 billion and this figure is predicted to reach 2,1 billion. In this case, it is the indicator of pressure to increase on water resources especially in countries currently going through water shortage.

Moreover, climate change will also change operation and functions of current water structures (hydroelectric, flood control, drainage and irrigation systems) and water management. According to the studies, the current water management does not have enough capacity to overcome the impacts of climate change. Water management also affects energy, environment, health, nature protection and food policies. For these reasons, vulnerabilities caused by present climate change should be stored as information, and managements related to water should be adapted to new circumstances.

“Effects of Climate Change on Water Resources”, Tuğba Evrim Maden, ORSAM, 17/02/2012, online at:
<http://www.orsam.org.tr/en/WaterResources/showAnalysisAgenda.aspx?ID=1607>

BACK TO TOP

❖ **Bentley highlights water solution at WaterWorld Middle East that is setting the pace for efficient and sustainable water systems in the region**

Bentley Systems actively participated in the WaterWorld Middle East 2012 exhibition and conference, held at the Qatar National Convention Centre, in Doha. Over 120 eminent international chairs and speakers and nearly 140 exhibitors from 23 countries took part in the exhibition.

At the conference, the Bentley team discussed and demonstrated the innovative capabilities of its fully-integrated water and wastewater solution. This solution addresses the entire water lifecycle and empowers owner-operators and their consultants in the Middle East to make their water systems more efficient, reliable, and sustainable. It does so by helping their engineers more effectively plan and design new water systems and optimize and efficiently operate existing ones.

Talal Shawwa, Bentley Geospatial sales manager for the Middle East and North Africa, said that engineers and modelers in the region are successfully using Bentley's latest water modeling and management technology to effectively analyze water and wastewater systems. The software enables them to prioritize infrastructure repair and replacement, compare diverse design alternatives, detect water leakage, minimize energy usage, and much more.

For example, engineers at Sharjah Electricity and Water Authority in the United Arab Emirates used WaterGEMS to modify and improve their water system. In addition to dramatically reducing the number of customer complaints, water leakage was reduced from 18.7 percent to 8.9 percent of the supply, which contributed to enabling their water distribution system to supply water at 22 percent below the calculated water demand without customer complaints.

In his WaterWorld address, Dr. Slavco Velickov, Bentley Water Industry sales director EMEA, discussed the WaterGEMS Pipe Renewal Planner. He explained that this Bentley offering provides utilities and their consultants with a reliable renewal decision support tool for identifying the pipes in water distribution networks that should be considered for replacement or repair. Ultimately, using this module helps reduce the risks of infrastructure failure, improving system reliability, and thereby lengthening the life of the infrastructure.

Dr. Velickov added that Bentley's water solution is much more than just hydraulic analysis. He said that its powerful capabilities enhance mapping and data management, information sharing and collaboration, hydrologic and hydraulic system analysis, design and construction documentation, field engineering and inspection, and operations and maintenance workflows."

"Bentley highlights water solution at WaterWorld Middle East that is setting the pace for efficient and sustainable water systems in the region", 21/02/2012, online at: <http://www.zawya.com/story.cfm/sidZAWYA20120221063344>

BACK TO TOP

❖ Oman Investing US \$2.9 Billion in 13 New Power, Water and Energy Projects Starting in 2012

Oman represents one of the fastest growing power and water sectors in the Middle East region with electricity and desalinated water demand expected to increase until 2017 at an average growth rate of about 9% per year according to the Oman Power and Water Procurement Company's 7-Year Statement 2011-2017.

To face the increasing demand, Oman is investing in strengthening power and desalination water generation capacity and in maximising the network efficiency.

Energy efficiency strategies as well as the ongoing and planned power and water projects will be among the key topics to be discussed at the Oman Power & Water Summit 2012 developed in cooperation with the Public Authority for Electricity and Water and with the official support of the Ministry of Regional Municipalities and Water Resources. Oman Power and Water Procurement Company, Authority for Electricity Regulation, Electricity Holding Company and Rural Areas Electricity Company.

As stated by H.E. Mohammed Abdullah Al-Mahrouqi, Chairman of the Public Authority for Electricity and Water (PAEW), "improving energy efficiency is one of PAEW's key objectives, we hope that the second edition of the Oman Power & Water Summit will attract even more local and international industry experts to share their ideas on optimising the use of electricity and water resources and enhancing energy efficiency. We look forward to hearing about policies and strategies implemented abroad that we can learn from and use to adapt best practices to respond to our country's needs".

The high-level support received for the four-day summit taking place at the Grand Hyatt Muscat on 6-9 May 2012, reflects the strong regional and international interest in Oman's dynamic power and water sector.

Speakers from Oman's power and water authorities and companies will be joined by international experts from the Sustainable Energy Authority of Ireland, National Renewable Energy Center of Spain, Organisation for Economic Co-operation and Development and Abu Dhabi Water & Electricity Authority.

Sponsoring and exhibiting at the event, renowned industry players will also share their expertise and present innovative solutions, including Wartsila, Towell Engineering, Siemens, International Power GDF Suez, STOMO, ACWA, UTICO, Oman Cables Industry, Modern Water, GE, Target, TORAY, Sogex Oman, Future Pipe Industries, Larsen & Toubro Oman, Saint Gobain and Power Economy Middle East.

"Oman Investing US \$2.9 Billion in 13 New Power, Water and Energy Projects Starting in 2012", 19/02/2012, online at: <http://www.sacbee.com/2012/02/19/4275362/oman-investing-us-29-billion-in.html>

BACK TO TOP

❖ Water for Food Director: Local solutions for global challenges

It's important to have a global understanding of water issues, but in the end solutions will come locally, said the newly arrived director of the Robert B. Daugherty Water for Food Institute at UNL.

Roberto Lenton, who assumed his job at the new institute earlier this month, spoke Monday as part of the Heuermann Lectures in the University of Nebraska-Lincoln's Institute of Agriculture and Natural Resources.

The title of Lenton's talk, "Water for Food: Think Globally, Act Locally," is a key theme for the University of Nebraska's Water for Food Institute.

Lenton expects the institute to be key in solving the challenges of feeding a population expected to grow from 7 billion to 9 billion by 2050, given the finite resources of land and water.

Already, Lenton noted, agriculture worldwide consumes 70 percent of available water. In some parts of the world, a trend of decreasing precipitation is having an impact even as the world becomes more urbanized, meaning "thirsty cities" will compete with agriculture for water.

Lenton noted that water availability and uses depend on local conditions, and technological and policy options also are locally driven. So, one-size-fits-all solutions to getting "more crop per drop" are not realistic.

"It's very important to have a global understanding, but in the end these solutions are inherently context-specific and must be locally determined," he said.

Lenton said the Water for Food Institute is well-situated at a land-grant university in Nebraska to be a key player in the research, policy and technology challenges to come. The state is home to the largest aquifer in North America, with decades of data on which to draw; major river systems; diverse climates and soil types; a reputation for successful management of water resources; and a keen interest in the issue.

As an example, Lenton pointed to the turnout of 600-700 people last week for an E.N. Thompson Forum lecture at UNL on the global water crisis. "You couldn't get 600 to 700 people in New York or Washington to talk about water," he said.

"If you're going to have a water institute, you'd better have it in a place where water is vital and where there is local experience you can draw on," said Lenton, an internationally recognized expert in water management and development who recently was the chairman of the independent World Bank Inspection Panel.

The University of Nebraska, with more than 120 faculty, on all four NU campuses, is involved in all aspects of water. And UNL's land-grant tradition will be key, Lenton said.

"There should be a focus on innovation and connecting the research with practice and policy," Lenton said, predicting, "the greatest revolution in technology might actually come at this stage in information technology, not irrigation technology."

"We have a huge task ahead of us," Lenton concluded.

The Water for Food Institute was established in April 2010 with a \$50 million founding gift commitment from the Robert B. Daugherty Charitable Foundation to the University of Nebraska. The institute already is forging key public and private partnerships in the Netherlands, Brazil, India, China and the United States, Lenton said. Just last week NU and the U.S. Agency for International Development agreed to collaborate on expanding research and development capacities related to water management in the Middle East and North Africa, work that will be conducted through the Water for Food Institute.

Lenton also is former chairman of the Water Supply and Sanitation Collaborative Council and of the Technical Committee of the Global Water Partnership; lead author on the final report of the United Nations Millennium Project Task Force on Water and Sanitation, which he co-chaired; director of the Sustainable Energy and Environment Division of the United Nations Development Programme in New York; and director general of the International Water Management Institute in Sri Lanka.

The Heuermann (pronounced Hugh-er-man) lecture series at IANR is made possible through a gift from B. Keith and Norma Heuermann of Phillips, Neb. The Heuermanns are long-time university supporters with a strong commitment to Nebraska's production agriculture, natural resources, rural areas and people.

The final lecture of 2011-12 will feature Jay Keasling, professor of chemical and biomolecular engineering and bioengineering at the University of California, Berkeley. Keasling, a UNL graduate, will speak May 8.

The first lecture of 2012-13, Sept. 28, will feature a panel of four former U.S. secretaries of agriculture -- Clayton Yeutter, Mike Johanns, Dan Glickman and Ann Veneman -- discussing the future of the land-grant university tradition, part of a celebration of the 150th anniversary of the establishment of land grants.

"Water for Food Director: Local solutions for global challenges", 22/02/2012, online at:

<http://www.northplattebulletin.com/index.asp?show=news&action=readStory&storyID=22476&pageID=29>

BACK TO TOP

❖ Improving desalination

Desalination of sea water to meet the industrial and residential water requirements has been in vogue for many decades now. However, the cost of water secured through this source has been very expensive, preventing large-scale adoption of reverse osmosis (RO) technology, commonly used in such plants. In recent times, costs are dropping significantly because of economies of scale, improvement in technology, thereby improving viability of desalination plants. This holds significant promise for both industries as well as municipal bodies to meet their water shortages.

GLOBAL SCENARIO

While harnessing sea water could potentially end water scarcity forever, the costs have been prohibitively expensive in the past, preventing widespread adoption. Middle East has been the leader in this technology, as the vast arid landscape has left limited options for these countries; today, approximately 50 per cent of the earth's desalination plants are located in the Middle East. The increasing size of the desalination plants has improved economic viability of this technology.

POWER SECTOR

In India, most new power plants are coming up in coastal areas, mainly to meet their water requirements through desalination. This has increased demand for desalination, and simultaneously rapidly increased competition in the desalination industry. This has resulted in steep drop in the price of membranes, a key component in desalination plants accounting for almost one-third of the total plant cost, by a more than 50 per cent drop in the last decade.

COST COMPARISON

Increasing scale of desalination plants, steep drop in membrane costs, and enhanced life of the membrane have together resulted in lower capital expenditure, as well as operating costs per MLD capacity for a new plant. Today, a new plant can produce water at approximately 3-3.5 paise per litre; while it is still higher than 1-1.5 paise per litre from traditional sources, it is vastly cheaper than 7 paise per litre that consumers pay for water through tanker lorries.

PRIVATE SECTOR CAPITAL

While the industrial sector has been quick to adopt the desalination route to meet their water shortages, municipal bodies, as well as central and state governments have shown lukewarm interest till date. Chennai Metrowater is the only municipal body in the country to have an operational desalination plant in the country, which meets approximately 7 per cent of the city's water needs. Co-opting private sector participation through Public Private Partnership projects and BOOT model plants would attract significant capital to this sector. Increasing cost of power, which accounts for 30 per cent of operating costs, and huge power deficits are serious concerns. A combination of solar energy units to power desalination plants can work eminently well

“Improving desalination”, 23/02/2012, online at:

http://www.thehindubusinessline.com/features/mentor/article2910365.ece?ref=wl_features

BACK TO TOP

❖ Need for strategic thinking

The focus of a seminar on economic reform in Jordan, one in a series held jointly between the University of Jordan and the Columbia Middle East Research Centre between January and March, was on the Jordanian economy from a regional and global perspective.

Interesting conclusions emerged from the speakers' presentations and from the comments of the attendees.

It is clear in today's globalised world that the economies of individual countries are monitored, judged and ranked by non-governmental international entities on the basis of certain criteria. The rankings are taken seriously, and many decisions of important world fiscal and economic players are based on them.

In a sense, a country's economy is no longer its own business, and individual countries have no control over judgement and ranking of their economies, except try to do their best to improve their performance.

Based on a number of rankings for the years 2010 and 2011, the performance of the Jordanian economy ranged from very good to fair and low. For example, with respect to economic liberalism, Jordan ranked 38 among 179 countries — a very good position. Regarding the individual's share in the gross domestic product, it occupied the middle position, ranking 90 out of 190 countries. It ranked low, 122 out of 160, as far as the protection of investment is concerned.

Overall, the country tends to fall close to the lower end. The government needs to study such rankings seriously, address the failings and capitalise on the successes in order to advance the status of our economy both regionally and globally.

Jordan's economy, naturally, is influenced by the geographical location of the country — close to the Gulf countries but not one of them, close to strategic maritime straits but not directly overlooking any, close to oil resources but having none, close to conflict but engaged in none, etc.

Jordan's scarcity of natural resources should also be taken into account: arable land constitutes 10 per cent of the whole area of the country, rain is scarce, water shortage is real, and energy is becoming a major problem. At the same time, Jordan enjoys good stability and very good human resources. Clearly, some of these features are formidable challenges, but some are opportunities and advantages. The performance of the Jordanian economy is determined by the quality of the government's response to challenges and opportunities, and its handling of the advantages.

Jordan both exports and imports human resources. Generally, this works to the advantage of the economy, as it imports cheap labour and exports relatively expensive labour. While this may result in some brain drain, there is a clear economic gain. Furthermore, Jordanian investments abroad, unlike what many perhaps think, are substantial. Jordanian investments in Egypt are estimated at JD1.5 billion, and in the Gulf states at JD4-6 billion.

The main problems for the Jordanian economy at present are the budget deficit (about JD1.4 billion) and the deficit in the balance of trade, as a result of the huge imports of oil and food; acute water and energy shortages; poverty and unemployment (in addition to the mounting emergence of corruption as a problem).

These are formidable problems. Nevertheless, the solution lies in addressing them interconnectedly: energy has to be addressed first; a solution to the energy problem improves the performance of agriculture and industry. These, in turn, lower the budget deficit and the imbalance in external trade, and all of this alleviates

poverty and lowers unemployment. Towards this end, Jordan has to invest in alternative energy, solar primarily.

Over the years Jordan's liberal economic policies have borne fruit. Many successes were registered at many levels, including the emergence of some good industries and the attraction of some good investments. However, one of the main shortcomings has been the inability to tie economic to social development. The aim of any successful economy should be development in general, and social development in particular: investments and industries that affect the local culture and have a social impact.

While this has happened on a small scale, at the larger scale it did not. An example of an investment that did not yield expected results is the Qualifying Industrial Zones, which had no impact on the development in the country.

Investment decisions have to be made carefully, taking into account not just numbers, but development as well.

The country should pay more attention to training. This way jobs can be obtained easier. Jordan's investment in higher education is good, but sending large percentages of Jordanian students to academic specialisations is negative; it can only contribute to unemployment.

Students should be directed to technical, technological and professional education, as well as to training generally. The latter is an international trend, and many countries devote more effort and financial support to training and technical education than to academic education.

Finally, and perhaps most importantly, the country needs to adopt a strategic thinking to tackle the economic challenges and economy planning. So far, it has been tackling the economy from a crisis-management perspective, as if this were the only thing to do.

There is no permanent body that thinks and plans for the economy. The responsibility is mainly left to the government, and as governments are changed frequently, they only think short term, and only give priority to economic crises. Governments do not think strategically. There is indeed need for a 10-year economic plan.

The ultimate conclusion is that the Jordanian economy has had important successes. There are many daunting challenges and excellent opportunities, but the economic performance in the days ahead depends on the vision, qualifications and sincerity of those who lead economic reform, and on their ability to push for and adopt strategic thinking as an approach.

"Need for strategic thinking", AHMAD Y. MAJDOUBEH, 24/02/02012, ONLINE AT:
<http://english.alarabiya.net/views/2012/02/24/196693.html>

BACK TO TOP

❖ Report: Sanitary drainage absent in 99% of poorest villages

Ninety-nine percent of Egypt's poorest villages lack sanitary drainage, according to a report released Monday by the cabinet's Information and Decision Support Center.

The report said sewage water is a main source of pollution, containing biological and chemical pollutants.

A gap exists between Egyptian cities and villages in terms of subsurface drainage, the report said, and only 44 percent of citizens nationwide have access to sanitary drainage.

Fifty-nine percent of Egyptian youths believe unclean streets and the omnipresence of garbage are the primary reasons for pollution. Also, 42 percent blame air pollution and 28.5 percent blame sewage water, according to the report.

The report also said 40 percent of youths believe noise pollution is the main problem in urban areas, and consider pesticides the chief source of pollution in the Delta governorates. Water contamination came first in Upper Egyptian and border governorates.

For vehicles, the report said 28 percent of cars tested on motorways do not conform to safety standards stipulated in Environment Law 4/1994. It noted that carbon dioxide emissions from 2009 to 2010 stood at 177 million tons.

The amount of sewage water discharged into the Nile by industrial facilities subject to environmental authorities' control reached 4.3 billion square meters in that same period. Domestic solid waste stood at 21 million tons, a daily rate of 58,000 tons, the report said.

Egypt ranks 68th out of 163 countries listed by the Environmental Performance Index, with a score of 62 percent in 2010. The index ranked Egypt worst among Arab countries in terms of the biological contamination of its water.

"Report: Sanitary drainage absent in 99% of poorest villages", Egypt Independent, 23/02/2012, online at: <http://mideastenvironment.apps01.yorku.ca/?p=4450>

BACK TO TOP

❖ No Ganges water beyond treaty

Bangladesh experts trash Mamata's outcry over broken Farakka sluice gates

There is little scope of Bangladesh's getting excess water through the Farakka barrage as the Ganges water treaty provides for adjusting the additional volume, experts say.

Even if extra water is released through faulty sluice gates, the flow through the other gates can always be reduced as it is India which controls the barrage operation.

The Farakka barrage that had long been a source of contention between the two neighbours has returned to the fore with West Bengal Chief Minister Mamata Banerjee crying foul over the Ganges water flow to Bangladesh.

In a letter to Indian Prime Minister Manmohan Singh, she has lately expressed concern that Bangladesh is getting more than its share of water because of two damaged sluice gates.

Gate 13 of the barrage went out of order on June 16 last year and gate 16 on December 9, she wrote to the prime minister.

Md Ahsanullah, director of the Bangladesh-India Joint Rivers Commission, told The Daily Star yesterday it was true that Bangladesh got more water this year.

But the country cannot make any use of additional water due to the absence of an adequate number of water reservoirs, he said.

He said if the proposed Ganges barrage was built, the excess water could be reserved for use in the dry season from March to May.

Ahsan Ullah said the design of the Ganges barrage to be built at Pangsha in Rajbari would be completed in July and the tender for its construction would be floated in December.

Ainun Nishat, an eminent water expert who was involved in the formulation of the Ganges Water Sharing Treaty in 1996, said if two of the 109 sluice gates of Farakka barrage were broken, it was still very much possible for India to control the release of water.

“And it is obvious that India would not allow any extra water to Bangladesh,” he said.

“Bangladesh might get water more than the usual if the water increases in the river.

“The quantity of river water depends on many factors, including excessive rainfalls upstream and less irrigation,” said Ainun Nishat, who is also vice-chancellor of Brac University.

Data available on the website of the Bangladesh-India Joint Rivers Commission show that in the first 10 days of February the flow was 1,11,872 cusecs [cubic feet per second] and Bangladesh received 80,787 cusecs at Hardinge Bridge point.

Under the terms of the treaty, Bangladesh is supposed to get 71,872 cusecs of water.

“It is India which controls the release of water. If India finds it has received less water in any 10-day period, it can balance it out,” said Nishat.

He explained that whatever water was available at the Farakka barrage point, India would get the highest amount of 40,000 cusecs as the feeder canal of the river Bhagirathi cannot contain more than that.

Under the provisions of the Ganges treaty, Bangladesh and India will each receive 35 thousand cusecs in alternate three 10-day periods between March 11 and May 10.

If the water flow is 70-75 thousand cusecs, Bangladesh will get 35 thousand and India the remainder.

If it is more than 75 thousand cusecs, India will get 40 thousand while Bangladesh will get the balance. But if the flow is 70 thousand cusecs or less, both the countries will share the flow equally.

However, measuring the flow through the Farakka barrage is complicated as it is based on the volume of water at the barrage point and two kilometres downstream at the feeder canal.

The Joint Rivers Commission website also says the availability of water at the Farakka Barrage point in the first 10 days of January this year was 136,486 cusecs, which was 96,179 in 2011 over the same period of time.

Asif Nazrul, an expert on international river water laws, said, “We just reproduce the water sharing data provided by India.”

“India gives us water after diverting the flow at many points. So how do we measure how much water was supposed to be at the Farakka point?” he said.

“No Ganges water beyond treaty”, 22/02/2012, online at: <http://www.thedailystar.net/newDesign/news-details.php?nid=223442>

❖ Water terrorism by India to overawe Pakistan

The majestic and ravishing landscape of the Kashmir Valley is so enchanting that whosoever happens to visit it gets spell-bounded and overawed by its natural beauty and longs to revisit it. The fairy land is rich in gem stones, timber and is laden with juicy fruits of all kinds; the men are fair colored, handsome, hardworking and skilled in handicrafts; and the women are beautiful and charming. The valley is rightly called the paradise on earth. It is, however, irony of fate that its beauty, fruits and freshness of air have only been enjoyed by foreign invaders and by tourists and not by the inhabitants of Kashmir. All the conquerors treated the people of Kashmir like slaves. This serene and enthralling valley has been converted into virtual hell for the Kashmiris. Except for 1-2% affluent Kashmiris, it is difficult for the rest to keep body and soul together.

Notwithstanding the cruel rules of earlier rulers, Kashmir was subjected to worst excesses in 1846 AD, when she passed into the hands of Dogra chieftain Maharaja Gulab Singh for a paltry sum of seven and a half million rupees through infamous Sale Deed of Amritsar, executed by the British conquerors of Sikh territory. The Dogra Hindu rule extending over more than a hundred years from 1846 till 1947 was one of the blackest periods in the history of Kashmir. Gulab Singh (1846-56) sucked the very life blood of the people. The last of the autocratic Dogra rulers was Hari Singh who had to abdicate power on 26 October 1947 in the face of freedom movement launched by Azad forces of Kashmir and tribal lashkar. The latter had come to the rescue of Kashmiri Muslims on 24 October 1947 after learning that they were being brutally butchered by Dogra Army and Hindu terrorist gangs.

By that time Pakistan had come on the world map but was only two months old. 80% of Muslim subjects of Kashmir under the leadership of Ghulam Abbas, chairing Muslim Conference had aspired to join up with Pakistan and had moved a resolution to that effect. But for the wily role of pro-Indian National Conference leader Sheikh Abdullah who was duped by Nehru, machinations of Congress leaders and Mount Batten would have failed.

Despite the mismatch, Pakistan forces put up a valiant fight and succeeded in keeping Kashmir a disputed territory requiring resolution through a fair and free plebiscite under the supervision of the UN so as to allow right of self-determination to the people of Kashmir. One-third of Kashmir which is known as Azad Kashmir was retained by Pakistan, which acts as the operational base for the freedom struggle in two-third Indian occupied Kashmir.

Pakistan had laid claims on Kashmir on the basis of ideological, religious, political and geographical linkages. Pakistan shared with Kashmir three of its rivers namely Indus, Chenab and Jhelum which originate from Himalayan part of Kashmir and form the backbone of its agriculture and literally the aqua vital. The other three rivers flowing into West Pakistan were Ravi, Sutlej and Beas had its origins in Indian Territory. Pakistan being a lower riparian was placed at a distinct disadvantage at the very outset particularly when viewed in context with India's bellicosity and expansionist designs and its failure to reconcile with existence of Pakistan. Hindu leaders had agreed to the creation of Pakistan under the illusion that it would live as a satellite under the gigantic shadow of Indian military, or would beg for re-integration into Indian Union within six months of its birth.

The 15-month 1948 war ended in January 1949 as a result of UNSC arranged ceasefire which was requested by India. Nehru agreed to stop the war after he assessed that major part of Kashmir including the enchanting vale, Jammu and origins of three rivers had been annexed, and that Pakistan being a lower riparian would be perpetually at its mercy. Liaquat Ali Khan accepted the ceasefire since at that time fledgling Pakistan was too deeply immersed in host of intractable problems. Prolongation of war would have been at the cost of survival of Pakistan. He was sure that the pledges given by Nehru and UNSC to hold a free and fair plebiscite under the auspices of the UN would be honored.

Nehru however made a u-turn on his promises and not only disregarded the UN resolutions but also started integrating Kashmir into Indian Union through deception, fraud and use of brute force. India's negative attitude and flagrant disregard of UN resolutions on Kashmir thwarted all attempts to settle the dispute by peaceful means. Instead of reaching an amicable settlement with Pakistan, it all along tried to pressurize Pakistan into giving up its demand for a just and fair settlement of the issue. Its obduracy and bellicosity led to 1965 Indo-Pak war and even the 1971 war was a result of unsettled Kashmir dispute. The two sides came close to war in 1990-91 and clashed with each other in Dras-Kargil sectors in the summer of 1999 due to Kashmir. Decision of the two countries to go nuclear in 1998 was also motivated by Kashmir, India wanting to retain its illegal hold over it and Pakistan wanting a just solution.

Laws framed by the US on terrorism in the aftermath of 9/11 suited India and Israel the most. Encouraged by the US, the two terrorist and expansionist states involved in massive human rights against Palestinians and Kashmiris respectively for decades became more barbaric. Pakistan by agreeing to become a front line state at the behest of USA to combat global terrorism got completely distracted from Kashmir and got deeply immersed in fighting its own people. Indo-Pak peace treaty signed between Gen Musharraf and Vajpayee in January 2004 gave new hopes of resolution of Kashmir dispute and other core issues. However, tall promises made by India proved elusive since it wasted time in futile CBMs and kept the core issues on the sidelines. India availed the elusive peace along the LoC to its advantage by intensifying its atrocities against marooned Kashmiri Mujahideen, devoid of support from Jihadi groups based in Azad Kashmir and Pakistan.

When India could no more drag its feet and situation in Occupied Kashmir became explosive following dispute over Shri Amarnath land, India's RAW in connivance with Mossad and CIA engineered Mumbai attacks drama on 26 November 2008, blamed Pakistan, stalled composite dialogue and reverted to its old hostile posture. Whole-hearted support of the US, western world and Israel as well as of Afghanistan together with easy induction of sophisticated weaponry from advanced world made the Indian leaders highly belligerent and uncompromising. Its military leaders openly talked of resorting to Cold Start doctrine to overrun Pakistan.

Pakistan tardily realized that it had been deceived by India under the garb of peace treaty and its real motive was to proceed with its covert war from Afghanistan and cultural war from its own soil so as to encircle Pakistan in a three-directional pincer and make it powerless. FATA and Balochistan were made volatile to play the Balochistan and Pashtunistan cards and to

force Pakistan to give up Kashmir. Water war was operationalized by building dams over the three rivers flowing into Pakistan from Occupied Kashmir to choke Pakistan.

Quaid-e-Azam Muhammad Ali Jinnah had rightly termed Kashmir as the jugular vein of Pakistan since cutting of the jugular vein causes instant death to a person, and if it is pressed hard, it renders the person half-dead. Sensing the wicked designs of the Hindu leaders, Jinnah could foresee that if the jugular vein gets severed in the process of partition of India, it would cause death to Pakistan, and if it is choked it would make Pakistan comatose. An enemy grip on the hill courses of these three rivers could starve West Pakistan. Furthermore, it could enable India to either flood Pakistanis living in low lying West Punjab, or choke water flow and cause drought and kill them, or flood or dry up canals suiting its military design during war.

He had rightly decided to stand up to the Indian aggression in 1948 irrespective of the fact that in that timeframe newly born Pakistan was engulfed in multi-dimensional problems. Had the two ill-equipped infantry brigades together with Azad forces and tribesmen not resisted Indian military's Summer Offensive launched in April 1948, whole of Kashmir would have been annexed by India. And had we not agreed to ceasefire as desperately demanded by India and continued fighting, our forces could have pushed out the thoroughly demoralized and exhausted Indian forces from Kashmir.

His apprehensions have come true and India is doing exactly what he had visualized in 1947. Despite signing Indus Basin Treaty in 1960, which gave exclusive water rights of Western Rivers Jhelum, Chenab and Indus flowing down from Occupied Kashmir to Pakistan, India in blatant violation of the said treaty has not only usurped the full quota of the three eastern rivers namely Beas, Sutlej and Ravi, but taking full advantage of the jugular vein which is in its iron grip is pressing it from many points by building dozens of dams to suffocate Pakistan to death or to make it gasp for life and thus forget about Kashmir.

India has ventured upon an ambitious plan worth \$120 billion to divert waters of Rivers Jhelum, Chenab and Indus flowing from north to south and turn fertile lands of Pakistan into a desert. So far, it has built 65 dams and headworks, but has plans to build a total of 300 small and big size dams so as to gain total control over the three rivers. It is constructing a 3800 km long canal in order to divert water from River Indus to River Sutlej. This project will be completed by 2014. In addition, construction of series of canals measuring 14000 km is also in the pipeline, which will help connect 14 rivers of India. From 2008 onwards, West Punjab's standing crops are getting severely damaged due to water shortage caused by Baghliar dam.

Violation of Indus Basin Treaty is in line with India's national policy of backtracking from its pledges and breaking international agreements and defying the UN. India intends to complete its water denial plan to Pakistan by 2016 after which Pakistan will get deprived of its share of water. Pakistan's condition will become worse than Somalia and Ethiopia, the two drought ridden countries. If India opens the gates of these illegal dams, it can sink Pakistan within 48 hours.

With no end to its malevolence, India has now managed to coax its strategic partner

Afghanistan to build dams over River Kabul and has offered its full assistance. This would further worsen water problem of Pakistan. India has full backing of USA, UK and Israel as well as the western world as a whole since none has ever taken notice of this most pitiless form of terrorism against humanity. Among host of coercive tactics applied by the gang of six based in Kabul, water terrorism is one of the cruelest forms to overawe Pakistan and break its will to resist. I wonder what the preachers of Aman-ki-Asha who are spending their entire energies to present the soft image of India have to say about the excessive human rights violations of Indian security forces against the Kashmiris including teenagers and water terrorism against Pakistan, which will suck the very life blood of the people of Pakistan. Brahman Hindus are far crueller than Hindu Dogras in Kashmir.

Unlike India which starts howling like a spanked child on slightest suspicion, or procurement of a weapon by Pakistan, or a terrorist attack and makes a mountain out of a mole, and the US led western world rush forward to extend their wholehearted support to anguished India lamenting over cooked up grievances, our leaders on the other hand for unexplained reasons remain tightlipped even when the very survival of Pakistan is at stake. Our lackadaisical approach encouraged India to build dams in contravention to the treaty. India managed to build so many dams illegally since we didn't make noise and failed to take up the case with international bodies in time. Jamaat Ali Shah, deputed to protect Pakistan's water interests remained in a laid-back position thereby allowing India to complete construction of Baghliar dam and now the Kishinganaga dam. He has gone in exile.

Pakistan should immediately take up this grave matter in the UNSC and International Court of Justice and under the UN deputed unbiased Commission carryout on spot inspection of all the spots on Rivers Chenab, Jhelum and Indus where dams have been/are being built and put an end to India's madness.

“Water terrorism by India to overawe Pakistan”, Asif Haroon Raja, 21/02/2012, online at:
<http://paktribune.com/articles/Water-terrorism-by-India-to-overawe-Pakistan-242868.html>

BACK TO TOP

❖ The Sahel's Complex Vulnerability to Food Crises

“Across the Sahel region of western Africa, a combination of drought, poverty, high grain prices, environmental degradation, and chronic underdevelopment is expected to plunge millions of people into a new food and nutrition crisis this year,” according to a [UN Office for the Coordination of Humanitarian Affairs \(OCHA\) statement from February 10](#). The coming “lean season” is predicted to be the third food crisis in less than a decade and highlights a set of glaring vulnerabilities in a region facing severe long-term threats to health, livelihoods, and security. However, as international agencies [call for funding](#) to mount yet another emergency response, serious concerns are being raised about what is (or isn't) being done to address the root causes of vulnerability.

When a Crisis Loses the Surprise Factor

Though more than one million children under-five are estimated to be at risk of “severe acute malnutrition this year, during a ‘normal’ year this figure still hovers around 800,000,” [according to the OCHA's IRIN service](#). Across the Sahel, UNICEF estimates an under-five child mortality rate of 222 per 1,000 live births – this means that more than [one in every five](#) Sahelian children dies before the age of five.

The Sahel is “a crisis in the context of a chronic emergency,” said [Oxfam America's](#) Eric Munoz during a January 25 Wilson Center Africa Program event, “[Is a Food Crisis Brewing in the Sahel?](#)”

“It's not necessarily that there is no food, it's that the poorest people can no longer afford to access the food with their own means,” elaborated Ben Safari of [Catholic Relief Services](#). Jacques Higgins of the [World Food Program](#) weighed in, observing that, “after a crisis, people are not able anymore to recover, to rebuild their coping strategies and resilience until the next crisis hits.” For instance, households previously forced into selling off assets such as livestock during past crises have had insufficient time to recover and cannot now employ the same survival strategy.

The perception that the resilience of populations in the Sahel is being worn down by the increasing frequency of humanitarian events is supported by a December 2011 report from the UN Environment Programme. [Livelihood Security: Climate Change, Migration and Conflict in the Sahel](#), provides a wealth of data, including detailed maps ([described on New Security Beat here](#)), and argues that successful strategies to reduce vulnerability and encourage adaptation require understanding “the exacerbating effect of changes in climate on population dynamics and conflict in the region.”

But despite the relatively unified voices emerging from practitioners, evaluations of past crises, and key international agencies about the importance of looking at, and directing funds towards, the long-term and interlinked vulnerabilities that drive food insecurity in the Sahel, “[the argument has not](#)

[been won yet](#),” said Cyprien Fabre, head of the European Commission Humanitarian Aid Department in West Africa, to *IRIN* recently.

Robert Johnson, a UNICEF nutrition specialist, told *IRIN*:

It is still difficult to ensure funding from government agencies for long-term preventative activities when there are critical life-saving interventions that they can respond to immediately. It's much easier [for them] to justify life-saving than long-term.

Sources of Vulnerability

Populations across the Sahel face a diverse set of [interwoven vulnerabilities](#) that exacerbate long-term susceptibility to physical shocks such as late rains and failed harvests, as well as social shocks, such as conflict, insecurity, and displacement.

Though traditional adaptation strategies to threats such as desertification, land degradation, and water scarcity exist, they are [increasingly in competition with one another](#), as [conflict over land tenure](#) between pastoralists and agriculturalists has revealed. Likewise, governance failures around the provision and control of [resource usage and basic infrastructure \(notably, water\)](#) have exacerbated tensions in a region where the majority of the population depends on rain-fed farming and/or pastoralism.

A contributing factor is that poor maternal healthcare and high rates of unmet need for family planning are common across the Sahel. This places a significant population-related burden on communities. Across the six nations expected by the UN to be most affected by the current crisis (Burkina Faso, Mali, Mauritania, Niger, Senegal, and Chad), the average [level of maternal mortality](#) is higher than 700 deaths per 100,000 births while the [unmet need for family planning](#) is estimated at more than 26 percent (averaged across states), according to World Health Organization data. (To put this in context, the average maternal mortality ratio in developing countries is [290 per 100,000 births](#), according to the WHO; in developed countries this figure drops to 14.)

A [September 2011 report by the Sahel Working Group](#) (SWG) on the prior crises of 2005 and 2010 concluded that “a glaring weakness in the development aid approach to addressing chronic food and nutrition insecurity is the low level of support for integrated reproductive and maternal health programs.”

Furthermore, mounting insecurity in the region is limiting access and displacing vulnerable populations. The International Committee of the Red Cross reported on February 20 that [60,000 people have been displaced](#) within Mali since mid-January as a result of the evolving [Touareg rebellion](#) sparked by the return of well-armed fighters from Libya. Another [20,000 have fled across the border into Niger](#).

The regulation of local, national, and international food markets also has a role to play. “[Markets respond to demand, not need](#),” writes Peter Gubbels in the SWG report. Vulnerable populations that lack the purchasing power to demand food, even when food is available, face significant threats. For instance, the report asserts that “a third of the population of Chad is chronically undernourished – regardless of the rains or the size of the harvest.”

Sustainable and Integrated Approaches

Without an integrated and long-term approach to the delivery of humanitarian and development aid, prospects for successfully addressing what has in essence become the normal state of crisis in the Sahel seem slim. Ideas for [integrating maternal and reproductive health](#) into existing programming, for [addressing the environment and sources of insecurity together](#), and for merging crisis response with the need for [integrated development](#) through avenues such as [disaster risk reduction](#) are out there. But more must be done to put these ideas into practice in order to reduce the complex vulnerability of populations in the Sahel to future crises.

Sources: *Al Jazeera, Groundswell International, International Institute for Environment and Development, Oxfam International, ReliefWeb, The International Committee of the Red Cross United Nations Children’s Fund (UNICEF), United Nations Environmental Program (UNEP), United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA), World Health Organization.*

Photo Credit: “[Walking among scattered bones](#),” courtesy of the International Federation of Red Cross and Red Crescent Societies.

“The Sahel’s Complex Vulnerability to Food Crises”, Sturat Kent, 24/02/2012, online at: <http://www.newsecuritybeat.org/2012/02/sahels-complex-vulnerability-to-food.html>

BACK TO TOP

❖ **WENDY ELLIOTT: Who will speak up for Canada's water?**

It looks like Wolfville activist Janet Eaton was wise to warn Wolfville town council recently about a possible ramification of the Canada-Europe Comprehensive and Trade Agreement (CETA). Eaton believes municipalities should be concerned about how CETA might impact our water supply. I think we all should be.

According to Geoffrey Lean writing in the Telegraph, Britain is facing the biggest water crisis since 1976. The south of England is looking at its third dry winter in a row and the public could soon face restrictions.

Last week, the Guardian suggested half of all households in Britain could face water restrictions, unless exceptionally heavy and prolonged rain falls by April. Caroline Spelman, the UK environment secretary, is going to hold a crisis meeting of companies, wildlife groups and other river users this week.

Our country was exceedingly fortunate when God was handing out global water resources.

We are close to the top of the list of water-rich nations, just behind Brazil, Russia and China.

Good thing because we also consume a lot of water: approximately 350 litres of freshwater a day per capita.

In fact, our nation is second only to the Americans as the most profligate wasters of water on the planet. The average global citizen needs only 20 and 40 litres of water a day for drinking and sanitation. Some 1.1 billion people suffer from a chronic lack of water.

It must be remembered that 97.5 per cent of water is salty and most of what remains is locked in polar ice caps. Only the bit left over is considered drinkable. No wonder some believe that water will be the oil of the 21st century.

Water has already caused wars between nations, particularly in the Middle East where five per cent of the world's population lives in territory with just one per cent of the earth's freshwater resources.

Canada is going to be a major player in the water stakes of the future.

Will the secretive CETA deal result in us losing our hold on a bountiful supply of water? One of the reasons for worry is a federal natural resources minister who has repeatedly refused to answer whether he believes in global warming. Joe Oliver seems to have a weird view of environmentalists.

"There are some radicals who do oppose all hydrocarbon development," Oliver said not long ago. "There are some who think that one one-thousandth of one per cent addition to global warming will somehow destroy the planet. These are people who are not backed by science."

Perhaps Oliver is unaware of the eight Nobel laureates who have spoken out about the oil from Canadian tar sands threatening the health of the planet.

Desmond Tutu has written, "oil from the tar sands of Alberta is the dirtiest in the world".

Critics in Britain also say the oil sands extraction process is extremely damaging to Canada's environment, due in part to its water-intensive nature. Our government would have us be comforted by the announcement of a new monitoring system on the impact of tar sands' on the environment.

This Thursday, according to Reuters, European Union officials are expected to vote on a draft law that would label fuel from Alberta as more polluting than other forms of oil. The Conservatives might label such a move unfair discrimination, but isn't it the truth?

I'm with NDP environment critic and Halifax MP Megan Leslie, who frequently clashes in the House of Com-mons with Oliver and Environment Minister Peter Kent.

"We don't have anybody who's looking out for the best interests of environment," she has said. "Our minister of the envi-ronment is going around lobby-ing about pipelines, for example. That's not what I imagine the minister of environment should be doing."

Will Kent and Oliver be selling our fresh water to the highest bidder next?

“WENDY ELLIOTT: Who will speak up for Canada's water?”, 19/02/2012, online at:

<http://www.kingscountynews.ca/Opinion/Columns/2012-02-19/article-2899577/WENDY-ELLIOTT%3A-Who-will-speak-up-for-Canadas-water/1>

BACK TO TOP

❖ Is a healthy environment a human right?

I just returned from a trip to northern India, to the states of Bihar and Uttar Pradesh. The visit got me to thinking about the relationship of economic development and a healthy environment.

India is part of BRIC, an acronym that refers to the countries of Brazil, Russia, India and China, which are all at a similar stage of rapidly advancing economic development. If the four BRIC countries continue developing so rapidly, by 2050 their combined economies could eclipse the combined economies of the current richest countries of the world.

So India is an economic powerhouse. It also is the most polluted place I have ever seen in my life. We spent most of our time on the Gangetic plain, the extremely fertile section of the country watered by the Ganges River, inhabited by humans for millennia. It is one of the most densely populated areas in the world.

We never saw the horizon because of the intense air pollution, and we wore breathing masks much of the time in an effort to protect ourselves from the worst of it. Rivers were foul with animal waste, algae blooms and plastic trash, and presumably unseen pollutants and contaminants, as well. We could not drink the local water without treating it, and many in our trip drank only bottled water, adding to the already heavy load of waste blowing around the landscape — solid waste disposal was nonexistent.

My purpose in this piece is not to “trash” (pun intended) India, which is a proud and powerful country with a young, dynamic, creative population, but to wonder where environmental protection comes in as a country develops.

What is the good of economic development if increased population and economic activity lead to deteriorated living conditions and probably many early deaths because of asthma and other lung conditions, waterborne illnesses, and contaminated food? And then there is the impact of economic development and overpopulation on wildlife habitat, watersheds, forests and other natural resources. At what point does a country say, “Enough. Now we have to clean up our act.”

I think this is something the U.S. did pretty well. Our own period of rapid economic development in the 19th and 20th centuries led to the environmental laws we have today: the National Environmental Protection Act, the Clean Air Act, the Water Quality Act, the Wilderness Act, The Endangered Species Act, the Solid Waste Disposal Act, the Safe Drinking Water Act, the Occupational Safety and Health Act, and more.

These are laws we can be proud of. These laws make it so we can drink the tap water, see the horizon, visit national parks, share some space with the other species on the earth.

Of course, the laws are not perfect. But it disturbs me that our system of environmental laws and regulations has come under such attack from the right wing. In their loathing of any sort of government, they appear to regard environmental protection as just another conspiracy to take away our “freedoms.” Me, I appreciate a strong and effective government that provides me with the freedom to breathe clean air, drink clean water, enjoy some open space.

I suggest that those who think our environmental laws are burdensome and unnecessary should spend some time in northern India.

“Is a healthy environment a human right?”, Anne Macquarie, 22/02/2012, online at:

<http://www.nevadaappeal.com/article/20120222/NEWS/120229969/1029&parentprofile=1061>

BACK TO TOP

❖ **Water & Business in Canada Part I: Building A Case For Deeper Commitment**

In anticipation of March 22nd - International World Water Day - and in Canada March 19th to 25th - Canadian Water Week I will be writing one blog a week on Canadian water issues as they affect and are being affected by business.

Global water issues have been on the rise - terms like "blue gold" have been made popular in both the public sphere and in CSR discourse. In Canada, however, the prevalence of a myth of water abundance is still keeping many companies in the dark about how to sustainably manage their use of the resource. Whether its water in Canada or abroad, understanding a product's water footprint is essential to manage multiple risks. Water shortages and competing user rights are not exclusive to places such as the Middle East or Africa; they are found right here in Canada.

Water CAN discriminate - it's all about location

It may be unfair, but water is not always available in quantities to support growing population intensity. In Canada, the best example can be found in the Prairies - specifically the Southern Alberta region. As the Province's population grow so does the need for water to support people and business, which, unfortunately taxes local resources. In 2006, a moratorium - which is still in effect - on new water licences, was put into place for the Bow River, Oldman River and South Saskatchewan River Basin (SSRB) sub-basin. New developments like CrossIron Mills shopping centre in Balzac (north of Calgary) faced extensive delays in search for a new water permit.[1]

For businesses and cities, stressed water resources can mean limited potential for growth.

It's not just quantity - quality really does count

Ontario faces its own issues. The largest province in Canada, Ontario is blessed to be home to four of the five Great Lakes. The Lakes contain nearly 20% of the world's freshwaters and is an essential part of the local economies in both Canada and the US. Yet having available freshwater is only part of the equation; its how much drinkable, swimmable, fishable waters that is the true account of our collective assets.

Unfortunately, the Great Lakes are in serious trouble and aside from low water levels experienced in Georgian Bay/Lake Huron, water quality is a major issue. Pharmaceuticals, raw sewage and industrial chemicals can all be found in the Lakes, which in turn affect the overall sustainability of the ecosystem.

With limited funds from regional and federal governments on both sides of the border, there is inadequate enforcement of industrial pollution. A 2007 report by The Brookings Institute estimated that "Restoring the lakes will lead to direct economic benefits of \$6.5-11.8 billion dollars from tourism, fishing, and recreation alone." [2] Investing in the health of our water resources can be beneficial to businesses, individuals and society as a whole.

Risks and Opportunities

The [Water Footprinting Network](#) provides a concise list of water risk for business:

- **Physical risk**
- **Reputational risk**
- **Regulatory risk**
- **Financial risk**

Understanding the risks is important to help unfold opportunities. Business can both demonstrate leadership as well as become more competitive; and some Canadian companies are integrating water management at home and abroad, into their strategy and operations.

In parts II the blog will explore corporate use of Water Footprinting and the Global Water Tool to address risks and opportunities.

NOTES

[1] The Calgary Herald, published December 1, 2007: <http://bit.ly/xKqaG6>

[2] "Healthy Waters, Strong Economy: The Benefits of Restoring the Great Lakes Ecosystem" by The Brookings Institute, September 2007: <http://bit.ly/AuMDPB>

“Water & Business in Canada Part I: Building A Case For Deeper Commitment”, 24/02/2012, online at:
<http://www.justmeans.com/Water-Business-in-Canada-Part-I-Building-A-Case-For-Deeper-Commitment/52377.html>

BACK TO TOP

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❖ Middle East's largest food congress starts in Dubai, highlights imports

DUBAI, Feb. 19 (Xinhua) -- The four-day Gulfood fair and exhibition, which runs in its 17th edition, is bringing together some 3,800 exhibitors from 88 countries with 65,000 trade visitors being expected, as the Gulf Arab region's dependency on food imports increases constantly.

Opened Sunday, the Gulfood, which runs through Feb. 21, also hosts a sideline conference where experts from multinational companies discuss the development and challenges of the food industry in the Middle East.

In her opening speech to the conference, United Arab Emirates (UAE) Minister of Foreign Trade Sheikha Lubna Al Qasimi said that "the Gulf Arab region imports 90 percent of its food needed from abroad."

Due to the humid and hot climate in the Gulf region, especially during the period from May to September, and the vastly deserted surface, the oil-rich sheikhdoms are not able to produce enough food for themselves.

Meanwhile, "The Gulf's population is on track to surpass the 50- million mark by 2020 from the current 40.6 million. By this time, the food consumption level would have reached 51.5 million tons after a compound annual growth rate of 4.6 percent," Lubna said.

"As for the UAE, we can expect our food imports to jump to around 8.4 billion U.S. dollars by 2020. Driving this surge is our growing population, which will increase its food consumption by 5.4 percent annually from 7.8 million tons in 2011 to 9.7 million tons in 2015. And then there are the 10 million tourists and 50 million transit passengers who visit us annually and add to our national food requirements," she added.

The region's strong dependency means big business opportunities for global food giants like Switzerland's Nestle or British-Dutch Unilever group.

"The food market is the most global market of all segments," Eelco Camminga, vice president of Unilever's Middle East, South Africa and Pakistan branch, told Xinhua, "Almost all dishes appear in all regions."

But local Arab firms are increasingly trying to rival the Western dominance in the market, such as Saudi Arabian dairy food producer Almarai and the UAE's Masafi Mineral Water Company.

"Local firms are growing, but for the future I see no replacement for the import of food in the region," said Austin Dias, marketing manager at Saudi Masterbaker Limited in Dammam, which imports nine tenths of its ingredients from the United States.

"Middle East's largest food congress starts in Dubai, highlights imports", 20/02/2012, online at:
<http://english.peopledaily.com.cn/90777/7733902.html>

BACK TO TOP

❖ Mountain Perspective and India's Water Policy

In this article suggestions have been given to the government of India in context to its draft National Water Policy 2012 towards water resource planning, development and management in the Mountains of India. This policy document talks about national level water related issues like; legal, usage, climate change adaptation, availability, management, pricing, infrastructure, planning, R & R policies, disaster preparedness, institutional arrangements, among others. It has been advised that the national Policy needs to be constructed considering various ecological principles in terms of judicious use and equitable development.

The Government of India intend to revise the National Water Policy (Link: [Draft National Water Policy India Feb 2012](#)) after almost ten years and asked for comments. After reading the national water policy 2012, I am proposing specific comments in regards to mountain states of India.

The mountain regions of India need enough attention due to their very different topography and geomorphological settings. Mountains occupy 24% of the surface area on Earth and have ecological, aesthetic, and socioeconomic significance, not only for the people who derive their daily subsistence from mountain resources, but, also for the estimated 40% of the global population depending indirectly on these resources for water, hydroelectricity, timber, biodiversity, and other niche products (A. Schild 2010). Himalayan glaciers are the source of the great Asian rivers on which about 2 billion people depend for drinking water and irrigation for their crops.

In 2008, the UN General Assembly adopted the Resolution 62/196 on sustainable mountain development, which specifically emphasized on sustainable development of the mountain region regions by recognizing the global importance of mountains as the source of most of the Earth's freshwater.

Of the total 50,000 glaciers in the Hindu Kush Himalayan (HKH) region the Indian Himalayan region contains 9575 glaciers and feeds 19 river systems, which includes the major rivers like Indus, Ganges and Brahmaputra. The glaciers in the Indian Himalayan region are spread across above 1 million Sq. km of mountain area with a total of about 23 thousand Sq. km glacial area.

In the above context, though the present Water Policy discusses coastal the regions of India (covering 11 Indian states) and the impact of climate change, but, equal importance has not been given to the 12 Indian mountain states. We need to think about this in terms of mountain specific water resource planning and budgeting. Our mountains store water in the form of snow, glaciers, permafrost, wetlands, and rivers, and they supply watersheds by providing ground water recharge. The communities who live in mountain areas benefit from these services, but the main beneficiaries of this huge water storage capacity are the multitudes who live in the vast basin areas downstream.

A recent Task Force Report of the Planning Commission of India (in 2010) on the hill states specifically emphasized that the mountains have profound effect on the climate of the Indian subcontinent and Tibetan plateau. It states that the water resource in the Indian Himalayan region are under threat due to diminishing discharge of springs and lowering water table, high silt load, water pollution and reduced water flow from big hydropower projects.

Following are the specific recommendations of the Task force in the context of mountain water:

1. In the Indian hill regions there should be provisions for water recharge zones and spring sanctuaries, rainwater harvesting and community owned network of small hydropower generation.
2. The ground water potential of different states of the Indian Himalayan region should be considered while planning for water security of the region.
3. There is a need for workable and community supported solutions to the discharge of polluted water for human habitation and agro-horticulture and industrial operations.

The Hindu Kush Himalayan mountains are a major source of stored water in the region. Water is retained in the form of ices and snow in the high mountains, as well as being stored in natural lakes, wetlands, and ground water aquifers, and behind constructed dams. It is evident that the temperature and precipitation in the form of rainfall and snow largely determine the hydrological cycle, including runoff. The changes in these factors will thus impact freshwater supplies from mountain areas and have implications for water availability in the lowlands.

The High altitude wetlands are important ecosystems in the Himalayan region (form 16% of total area of HKH) and the ground water aquifers are important for water storage.

Given that the Water Policy 2012 contains all the possible elements of water resource planning, implementation and management, but in my view it should adopt a more pragmatic approach in putting and defining them. Following suggestions should be considered by the policy making team in context to mountain regions specifically, and in general:

1. Water storage based on local practices, should be encouraged.
2. It should have solutions that consider shorter and erratic rainfall, to store massive quantities of water for dry spells.
3. There is a need to understand the potential of water storage for climate change adaptation in mountain regions, and, therefore, it is necessary to look at the natural storage systems in the cryosphere and biosphere, as well as examining constructed systems (*The natural systems in the cryosphere include snow, ices and glacial lakes, while the natural systems in the biosphere include soil, moisture, ground water aquifers and natural water bodies and wetlands. The constructed systems include artificial ponds and tanks, as well as small and large reservoirs.*)
4. The Policy should look in the existing National Action Plan for Climate Change that emphasizes water resources in terms of adaptation and mitigation measures.
5. While the Policy talks about the ‘low public consciousness’ on water security and its economic value, we need to incorporate the specific provisions of larger and comprehensive IEC (information, education, communication) campaigning through all possible means to save water and I would say that the proposed authorities should take stock from the national campaign – the Polio Eradication programme.
6. While we covered the human, social and economic needs of water in planning, development and management, equal emphasis has not been given to the ecological need, and payment for ecological services (PES).

7. Provisions to fulfill the data gap in the Indian Himalayan region in the context of complete data set on temperature and rainfall pattern will help in future planning.
8. We can't afford to have the private sector taking charge of water in the states due various reasons and this issue should be dealt with cautiously through a separate debate, considering the environmental and ecosystem issues.
9. In water pricing I see that provisions have been made selectively on volumetric basis, if this is the case then we must think that the water used by big hydropower projects, due to which many ecosystems in the river basins get affected should be charged for holding huge amount of water for the electricity generation. We should think in terms of natural and man-made storage systems, so for obvious reasons when we are using a definite volume of water for productive purposes or business like industrial operations, hydro-power generation or tourism, etc. the cost of using that water should be borne by that business on a volumetric basis.
10. Special emphasis should be given to research areas like GLOF (Glacial Lake Outburst Floods), and high altitude wetlands.
11. Given that in practice different aspects of water use in India fall within the purview of several ministries, line departments and institutions, at both the central and state levels a cautious and practical approach needs to be adopted by applying the IWRM principles for water development and management.

“Mountain Perspective and India's Water Policy”, K. N. Vajpai, 22/02/2012, online at: <http://www.nl-aid.org/continent/south-asia/mountain-perspective-and-india%E2%80%99s-water-policy/>

BACK TO TOP

❖ Ethiopia Says It's High Time To Implement Nile Co-operation Framework

ADDIS ABABA, Feb 23 (BERNAMA-NNN-ENA) -- Ethiopia's Ministry of Water and Energy says it is high time to implement the Nile Riparian Countries Co-operation Framework Agreement (CFA).

The head of the Nile Basin Administration Directorate at the ministry, Fekahmed Negash, told the Ethiopian News Agency (ENA) during celebrations here to mark the 6th Nile Day on Wednesday that the CFA, signed by six riparian countries, was about to be implemented.

High on the agenda over the last ten years, the CFA would be a law for each country after it was endorsed by the respective countries' parliaments or Heads of State, he added.

He said the priority agenda for the implementation of the CFA would be the establishment of a Nile Riparian Commission, which would be responsible for the planning, implementation and provision of support for development projects as well as sustainable utilization of the Nile's water.

He said Ethiopia was constructing the Grand Ethiopian Renaissance Dam in line with the spirit of the CFA and considering the benefits of downstream riparian countries.

The director said the dam would connect the neighbouring countries through a power connection to distribute the electricity generated.

He also expressed the hope that those riparian countries which had not yet signed the CFA would do so soon.

Ethiopian Water and Energy State Minister Kebede Gerba said at the celebrations that riparian countries should nurture co-operation facilitated by the creation of the Nile Basin Initiative (NBI) to reap the benefits.

He said co-operation among Nile riparian countries would lead to many benefits which would ensure water, energy and food security in the countries of the Nile Basin.

The Nile, at 6,650 km, is the world's longest river.

The theme of this year's celebration is "Water, Energy, Food: Importance of Co-operation", fits well into Ethiopia's current five-year Growth and Transformation Plan which has made water and energy the cornerstone of its development planning, he added.

NBI Executive Director Wael Khairy said efforts are underway to ensure equitable utilization of Nile water. With the support of the NBI, riparian countries will be connected through an electricity grid

for power trade which could forge strong regional integration ties in agricultural trade, telecommunications, tourism and other sectors, he added.

He said the NBI helped the riparian countries in leveraging more than US\$1.2 billion to implement a number of those regional projects in the area of power generation and transmission, trade, watershed and river basin development and agriculture.

Representing the NBI's Development Partners, the Netherlands Ambassador to Ethiopia Hansen Blank Berg said establishing strong partnerships among riparian countries was an indispensable option.

He said the riparian countries should have firm political commitment for the effective implementation of the CFA. Their development partners would extend support to the co-operation among riparian countries to ensure equitable unitization of the Nile water.

The Day is being celebrated in Jinja town in Uganda, recognized as the source of the White Nile, with the presence of water ministers of the riparian countries.

The NBI was established in 1999 by the Nile Council of Ministers of water affairs from Burundi, Democratic Republic of Congo, Egypt, Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda.

“Ethiopia Says It's High Time To Implement Nile Co-operation Framework”, 23/02/2012, online at:
<http://www.bernama.com.my/bernama/v6/newsworld.php?id=647487>

BACK TO TOP

❖ **Uganda: Egypt Okays Development Along River Nile**

The Nile Basin countries should invest in development projects on the River Nile to benefit their people and those beyond, the Egyptian Water Minister, Mr Hesham Kandilu, has said.

"When you take the example of Bujagali and Kiira power dams which have been set up on this river in Uganda, many of us are benefiting. So let's make it a point to have more of them set up," said Mr Kandilu.

He was addressing ministers for water from the Nile Basin countries' during their conference in Jinja on Wednesday, shortly after the launch of Nile Water Day celebrations at Busoga Square.

The call was a sharp contrast to previous stance that Egypt has projected that any other countries along the Nile should first consult it before any major development that would affect the river's flow, is made.

A 1959 agreement overseen by colonial power, Britain, gave Egypt an upper hand in the control of the Nile waters, binding both Egypt and Sudan to jointly handle any "adverse" usage by another riparian states.

As a measure to collectively counter Egypt's "natural claim," nine riparian states formed the Nile Basin Organisation in 1999, which on Wednesday celebrated 12 years of existence.

The ministers also resolved to adopt population control as a measure to check the pollution and any other human pressure on the Nile.

Ugandan Vice President Edward Sekandi, who presided over the celebrations, challenged the Nile basin member states to guard against environmental degradation as they plan activities on the Nile.

"We should all be concerned with the environment protection on these waters as we push for development to avoid risks associated with its abuse," Mr Sekandi said.

He appealed for equitable sharing of the benefits from the Nile water to avoid conflicts.

Mr Ssekandi also called for cooperation among member states to ensure collective efforts to protect Nile water.

State Minister for Water and Environment Betty Bigombe represented Uganda. Next year's celebrations will be held in Ethiopia.

"Uganda: Egypt Okays Development Along River Nile", 24/02/2012,online at:

<http://allafrica.com/stories/201202240082.html>

BACK TO TOP

❖ Countries debate Nile River plans

ADDIS ABABA, Ethiopia, Feb. 24 (UPI) -- Ethiopia says it is time for a new agreement among countries bordering the Nile River to move forward on energy plans.

Ethiopia is urging Nile Basin countries -- Egypt, Sudan, Ethiopia, Eritrea, Uganda, Kenya, Tanzania, Burundi, Rwanda and the Democratic Republic of Congo -- to implement the Nile Riparian Countries Cooperation Framework Agreement in an effort to boost energy along the world's longest river.

The CFA agreement would establish a Nile Riparian Commission aimed at being responsible for planning, implementation and support for all projects along the Nile, Bikya Masr reported Friday.

Fekahmed Negash, head of the Nile Basin Administration Directorate, said the CFA, signed by six of the Nile-bordering countries, would soon be implemented.

Ethiopia is constructing the Grand Ethiopian Renaissance Dam in line with the CFA, he said, despite worries from Egypt and Sudan over its erection.

Egypt, the recipient of the lion's share of Nile water, says it would not enter into any agreement that does not maintain current Egyptian water levels.

Other upstream Nile Basin nations, including Ethiopia, have demanded Egypt and Sudan give up their dominance of water rights and abolish a 50-year-old treaty established under British colonial rule that allows Egypt more than 80 percent of all Nile water.

“Countries debate Nile River plans”, 24/02/2012, online at: http://www.upi.com/Science_News/2012/02/24/Countries-debate-Nile-River-plans/UPI-42331330125949/

BACK TO TOP

❖ Experts oppose draft water policy

CHANDIGARH : The central government's move to seek opinion of the states on [National Water Policy](#) by February 29 has kicked up a storm of debate in Punjab, which has a rich share in rivers originating in the Himalayas.

On Saturday, experts on water resources, academicians and leaders of various political parties debated the subject publicly to generate awareness on what the policy can spell for the state. Water, so far a state subject, is likely to become a national subject after the formulation of the legislation by the central government. This is being vociferously opposed by farmers in the state.

Speaking at the seminar jointly organized by the Bharati Kisan Union (Siddhupur) and [Internationalist Democratic Party](#) (IDP) at Kisan Bhawan , former Punjab irrigation chief engineer G S Dhillon said, in Punjab 70% of water requirement for irrigation is being met through ground water through 14 lakh tube wells sunk by farmers themselves. "The proposed water policy intends to impose an official control on the use of ground water and installing of the new tube wells would be allowed only after an official permission," he said.

A majority of speakers favored the rejection of the draft water policy outrightly and professor Manjit Singh suggested formation a [Peoples Water Commission](#) to document the snatching of water resources from the states by the Centre. BKU president Pishaura Singh Sidhupur regretted that political leadership in Punjab has failed to protect the state's water resources from plundering by the Center and adjoining states. More than half of Punjab river waters had been taken away by a non-riparian state of Rajasthan without paying a single penny as royalty.

“Experts oppose draft water policy”, 26/05/2012, online at: <http://timesofindia.indiatimes.com/india/Experts-oppose-draft-water-policy/articleshow/12039135.cms>

BACK TO TOP

❖ Bahrain's new power, water plant starts op

The Al Dur Power and Water Company's plant in Bahrain achieved full commercial operation earlier this month, it was announced today.

Al Dur is the largest independent power and water desalination plant in Bahrain, producing 1,234 MW of power and 48 MIGD of water.

The announcement was made by partners IPR-GDF Suez Middle East, Turkey & Africa, Gulf Investment Corporation, the Social Insurance Organisation, Capital Management House, Bahrain Islamic Bank, First Energy Bank and Bunyah, an Instrata Capital managed fund.

The Bahraini Electricity and Water Authority (EWA) is the sole off-taker of the plant output as stipulated in the 25-year Power and Water Purchase Agreement.

Al Dur was built by Hyundai Heavy Industries and uses General Electric turbines for the two power blocks. The plant utilizes Reverse Osmosis (RO) as its water desalination technology. Degremont (GDF Suez group) has provided the RO technology, which is a highly flexible, efficient and environmentally friendly desalination technology.

Al Dur will be the largest desalination plant with reverse osmosis technology in the Middle East.

Shankar Krishnamoorthy, president and CEO of IPR-GDF Suez Meta, said: “We are pleased to announce the formal commencement of operations of the Al Dur power and water plant in Bahrain, which is an integral component of the power and water infrastructure of Bahrain. The successful launch of operations is due to the close alignment and cooperation of all our project partners and we want to thank them for that.”

Hisham Al Razzuqi, CEO of Gulf Investment Corporation, added: “This is the second project that GIC and International Power-GDF Suez bring to successful completion in Bahrain, after Al Ezzel Power. With the completion of this award-winning project despite challenging financial market conditions, GIC is now the largest, single private foreign industrial investor in Bahrain. We and our partners continue to share the ambition of participating in vital infrastructure projects that the economies of the GCC require for their future growth.”

Khalid Al Bassam, chairman of Bahrain Islamic Bank, said: “This is the first time that a power and water project in Bahrain has had such significant equity participation by Bahraini institutions. We are proud to say that this is the largest single private industrial project in Bahrain, and one which has now achieved commercial operation.”

The Al Dur plant will be operated and maintained by Al Ezzel Operation & Maintenance Company (AEOM), a wholly owned subsidiary of International Power. AEOM also operates the 954 MW Al Ezzel power generation plant.

The Al Dur Power and Water Company is owned by IPR-GDF Suez Meta (45 per cent), Gulf Investment Corporation (25 per cent) and the Bahraini partners together own 30 per cent. -
TradeArabia News Service

“Bahrain's new power, water plant starts op”, 20/02/2012, online at: http://www.tradearabia.com/news/CM_212932.html

BACK TO TOP

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❖ World Water Council Taps Grayling For International PR Brief

PARIS--The World Water Council has appointed Grayling to develop its media and digital strategy in the run-up to the 6th World Water Forum.

The event, held in Marseille next month, aims to help raise the profile of worldwide water issues. Over 30,000 participants from 182 countries took part in the last World Water Forum, which took place in Turkey in 2009.

Grayling's corporate and public affairs teams in both France and the UK will work with the World Water Council, co-organiser of the World Water Forums, to raise awareness, attract participants and promote the Council during the Forum.

"Grayling brings its specialist expertise in sustainability and environmental issues combined with our core strengths in communications, PR and social media," said Grayling CEO Michael Murphy. "I have no doubt our team will bring real passion to the partnership in support of this global cause."

The World Water Council was established in 1996 in response to increasing concern from the global community about world water issues. Its mission is to promote awareness, build political commitment and trigger action on critical water issues.

"World Water Council Taps Grayling For International PR Brief", 21/02/2012, online at:

<http://www.holmesreport.com/news-info/11493/World-Water-Council-Taps-Grayling-For-International-PR-Brief.aspx>

BACK TO TOP