

ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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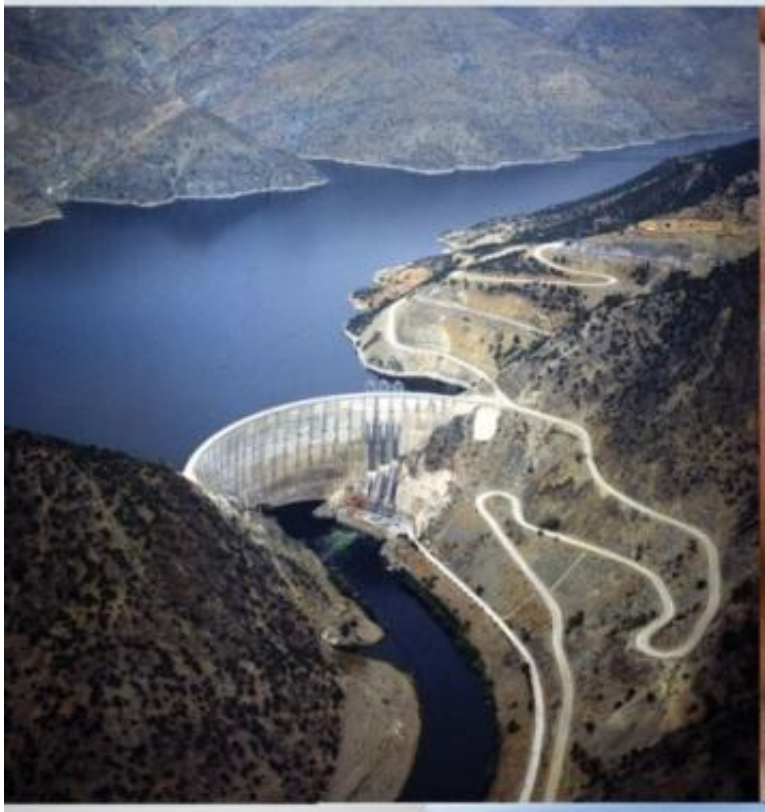



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Mithat Paşa Caddesi 46/4 Kızılay-Ankara TURKEY
Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

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

❖ Understanding desertification in Turkey

Introduction of cash crops and animal species is a strong tool to improve economic conditions in any locality.

However, income generation for local people via agricultural activities in marginal lands is critical under fragile environmental conditions due to the excess input requirement and the costs associated with establishing new crops.

In a sloping land, agricultural practices can easily induce erosion, which will decrease soil quality, irrigation in arid lands may cause secondary salinity build-up and overgrazing in pasture land may accelerate loss of biodiversity.

Karapınar, located in the Konya Closed Basin in Central Anatolia, is a site covering all those conditions at the same time.

That's why it has been a lab for studies on the conservation of marginal lands and sustainable local development since 1960s.

The process has been guarded for years by the erosion monitoring station built in Karapınar that is still in operation. Hence various data are available, creating a sound base for further implementation and research.

CROP-MAL, Creation of Rational Opportunities for Conservation of Marginal Arid Lands, funded by Japanese MITSUI, has been implemented in Karapınar since 2009 as a follow-up project to DESIRE Project completed in 2008 which documented all relevant data on natural resources, social structure and the potential production capacity of the site.

Within the scope of CROP-MAL the project area has been expanded to cover the whole microbasin. This includes various land types typical to the site.

The context of the project has also been upgraded to cover capacity building and land management action planning like the production of a land management model.

The project aims to conserve the water and soil resources of the site, to introduce the tools for the sustainable use of those resources and, to combat and mitigate desertification with a multi-disciplinary approach in an area covering approximately 4100 km2 in Central Anatolia (Karapinar Microbasin covering Karapinar and the arid and semiarid zones of Eregli and Karaman).

TEMA is cooperating with Cukurova University, Department of Soil in this project to transfer the know-how generated in universities to the field and vice versa.

The project is basically structured on four main components:

Demonstration fields for the introduction of good agricultural practices enabling direct contact with the locals.

Farmer training and education to raise awareness.

The development of traditional crafts and local products for economic diversification to decrease the human pressure on soil.

Data collection, monitoring and analysis of water, soil, vegetation and climate sequestration and the production of a sustainable land management model.

As stated above, the project adopts an integrated perspective to the problem of desertification and land degradation in arid lands with a scientific sensitivity while taking into account the current political and social conditions.

Throughout the project, various scientific outputs have been produced such as desertification sensitivity maps, crop pattern maps, anthrospace tables indicating the dependency of the crops and the zones and analyses of change in water resources.

All of this has formed the basis for the sustainable land use model specifically designed for the CROP-MAL site.

The next step is aimed at producing a 'community' layer to complete the social and political dimension of the picture since experience has shown us what is critical to success is the level of involvement of locals and the commitment of local agents. Without this, change is not possible.

The final outcome of the project is expected by July 2012 with the development of the sustainable land management plan of Karapinar. The plan will help the decision makers to adopt the most effective strategy to achieve sustainable development in the site as a guiding reference.

"Understanding desertification in Turkey", Duygu Kutluay, 26/04/2012, online at: http://www.rtcc.org/learning/understanding-desertification-in-turkey/

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

❖ Nanda: Water's demand-supply gap widening

We in Colorado are accustomed to occasional droughts, scarcity of water, and water restraints. But several countries in sub-Saharan Africa suffer from endemic drought, and frequently face massive displacements of people as a result. There is consensus that the contributing causes of the civil war in Darfur, primarily an ethnic conflict, were drought and desertification.

Drought causes serious problems, but even without drought the challenge still remains of meeting the increasing demand for fresh water all over the world. A 2010 report by the Water Resources Group, including the World Bank, estimated that the gap between water demand globally and a reliable supply could reach between 40 percent and 50 percent by 2030 because of the growing population, the impact of industrialization, and further spread of irrigated agriculture.

Almost 1 billion people do not have access to safe drinking water. Water-related diseases are the cause of one out of every five deaths under the age of 5 years old. The source of nearly 80 percent of illness in developing countries is poor water and sanitation conditions.

Freshwater shortages can create conflict between countries. For example, while Syria and Iraq squabble over Turkey's plans to dam the Euphrates River, Palestine, Jordan and Syria oppose what they consider to be manipulation of water resources by Israel.

A U.S. intelligence report released in unclassified version last month says that beyond 2022, the use of water as a tool of terrorism or a weapon of war will become likely, particularly in South Asia, the Middle East and North Africa. Although it does not name the specific countries facing greatest risk, the study focused on several rivers and water basins, including:

• The Nile, which runs through 10 countries before traveling through Egypt into the Mediterranean Sea;

• The Tigris and Euphrates in Iraq and the Middle East;

• The Mekong in China and Southeast Asia;

• The Jordan, which has for long been a source of conflict between Israel, Jordan and the Palestinians; and

• The Indus and Brahmaputra in India and South Asia.

We may not be in danger of running out of water, but the problem is the uneven distribution and availability of clean water. For example, India, with 17 percent of the world's population, has only 4 percent of the usable fresh water. Coupled with rapid economic growth and urbanization, the demand-supply gap is widening. Among countries facing increased scarcity, Bangladesh, already suffering a shortage of nearly 40 percent during the dry season, is a prime example. Its surface and groundwaters are contaminated and its rivers are dying because of industrial and human waste, causing a number of diseases.

Along with the United Nations, many service organizations, such as Rotary International, are actively involved in providing funding for sustainable freshwater, sanitation and hygiene projects. Africa and Latin America have received special attention from the rotary. The Denver Rotary, along with many other rotary clubs in the metro area, has funded a number of water projects in developing countries.

Chuck Turner, chair of the World Community Service Committee, told me that the club is considering several other projects like the one in which it recently provided funding to a small community in Zambia, with the help of Heather Cummings, a former Peace Corps volunteer living there. Subsequently, Denver's Stanley British Primary School raised funds and joined with the rotary to send water-filtration devices to the Zambian community. The club also provided pumping, storage and delivery of clean water to a hospital project in Mbuji-Mayi in the Democratic Republic of Congo, while Denver-based Project Cure provided medical supplies.

Many other local non-profits are active in helping developing countries improve access to safe water and sanitation. Earlier this month, the Golden-based iDE won a $100,000 Lipman Family prize from the Wharton School at the University of Pennsylvania for its "innovative market-based approaches to safe water and sanitation access." It offers simple, affordable technologies for pumping, filtering, storing and distributing clean water in several countries.

How will the challenge be met? Given the finite supply of water, the focus has to be on conservation and increasing efficiency in water use, including watershed management, rainwater harvesting and groundwater recharge.

"Nanda: Water's demand-supply gap widening", 29/04/2012, online at:
http://www.denverpost.com/opinion/ci_20490754/waters-demand-supply-gap-widening

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

❖ 'Refugees, expatriates to stretch Jordan's water supply this summer'

AMMAN — With the arrival of thousands of Syrian refugees in Jordan and the return of expatriates in summer, the Kingdom's water supply is expected to face severe strain in the coming months, a government official said on Saturday.

As the Ministry of Water and Irrigation drafts out its summer water budget, officials are struggling to secure water from various sources in order to maintain a regular water distribution programme and supply sufficient water for homes, agriculture and industry, the ministry's spokesperson and assistant secretary general, Adnan Zu'bi ,said.

"Water needs for drinking purposes are expected to reach 180 million cubic metres (mcm) this summer, when the water deficit will range between 10mcm and 13mcm," Zu'bi told The Jordan Times.

The water deficit will be met by improving and rehabilitating water resources, exploring new sources, purchasing water from private wells, establishing new water pipelines to improve the water supply process and linking water pumps to the electricity grid, he explained.

"The water distribution programme will not be changed this summer, despite the expected deficit, because the water budget took into consideration every governorate's water needs and the expected rise in demand, whether due to the return of expatriates or the arrival of Syrian refugees," the official said.

Under the water distribution programme, households in Jordan receive water once during a set period, usually a week to 10 days, on a rotating basis.
Scarce water resources in the country compelled the Kingdom to initiate the programme in the early 1980s to conserve limited resources and ensure a sustainable water supply for subscribers.

Heavy rains during this year's wet season boosted the ministry's water reserves, Zu'bi said.

"The winter brought very good amounts of rain, which not only increased water storage in the dams but also revived drying springs and boosted underground water levels," he noted.

The country's 10 major dams currently hold 114mcm or 35 per cent of their total capacity of 327mcm, Zu'bi said.

"Forty per cent of the water stored at the dams is kept as a strategic reserve to ensure a continuous supply of water to farmers in the event of a dry year," he noted.

Dams are crucial for the Kingdom to secure its water needs, according to experts. Jordan is among the four most water poor countries in the world, with an annual water deficit of approximately 500mcm.
Approximately 91 per cent of the country's total area of 97,000 square kilometres is arid, with an

annual rainfall average of 50-200 millimetres, while 2.9 per cent of the country's land is semi-arid, with an annual rainfall average of 400-580 millimetres.

"'Refugees, expatriates to stretch Jordan's water supply this summer'", 22/04/2012, online at: http://jordantimes.com/%E2%80%98Refugees,%20expatriates%20to%20stretch%20Jordan%E2%80%99s%20water%20supply%20this%20summer%E2%80%99-47254

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❖ The Arab Spring puts a strain on Jordan's ecology

An influx of refugees from war-torn Syria is draining Jordan's main oasis and depleting wildlife and water supplies.

IT WAS one of those magical moments. I had my binoculars trained on a kingfisher, perhaps a migrant from Europe, when the Muslim call to prayer echoed beautifully over the marsh.

Beside me in the birdwatching shelter, my guide Hussein muttered in annoyance. Was he worried about leaving me there so he could go and pray?

Just then a big, bright flutter of white and blue exploded from the reeds. This was no migrant. It was a white-throated kingfisher, an Asian species at the western end of its range.
"He's always scared," Hussein explained, gesturing towards the nearby mosque. That's what had annoyed him: Hussein knew the call to prayer spooked this bird and he feared we would miss it.

A few years ago he wouldn't have worried - there would have been plenty of kingfishers. Hussein is the resident bird guide at the Azraq Wetland Reserve, a tiny oasis in the Jordanian desert about 100 kilometres east of the capital Amman. One rarely hears about ecological destruction amid the human tragedies of the Middle East. But here, and elsewhere, the conflicts are taking their toll on the environment. Just as water scarcity can lead to wars, so wars can lead to water scarcity.
Azraq means "blue" in Arabic. It is, or was, the only permanent oasis in the surrounding 12,000 square kilometres of desert. Porous basalt carries rainwater here from mountains in Syria, which created 25 square kilometres of wetland, for centuries a haven for people and wildlife.

Signs of human habitation, including mysterious stone circles up to 70 metres across, date from the early Palaeolithic. The wetland was a vital crossroads for long-distance caravans and has long been a stopover for migrating birds. A survey in 1967 counted 350,000 on a single day.
Then the water balance went wrong. Jordan is a dry country, but tries to manage its scarce resources wisely. Population growth has been slowing in line with prosperity and careful development might have supplied everyone without damaging the underlying ecology. But Jordan has an extra problem: repeated, sudden influxes of refugees.

Palestinians from successive Israeli conflicts already account for about one-third of the country's 6.5 million people. Less publicised waves of Iraqi refugees arrived in 1990 and 2003; the Jordanian government estimates that about 450,000 remain. Now refugees are arriving from Syria.
Such sudden surges of people have to be supplied fast. Hazem Al-Khreisha, the reserve manager, says Jordan started pumping the Azraq aquifer to supply the Palestinians. In 1982, the country's Royal Society for the Conservation of Nature persuaded the government to stop. A few months later there was no alternative but to start again.
A scientific report last year showed the aquifer could sustainably supply 20 million cubic metres of fresh water a year. But 56 million cubic metres a year are being pumped out. The aquifer

supplies a quarter of Amman's drinking water, and illegal wells that feed farms visible in satellite images of the reserve.
The aquifer is falling by nearly a metre a year, threatening to destroy it as a source of fresh water. Beneath it lies another layer of rock full of ancient, salty water, and the change in water flow is allowing that to seep into the fresh water above. Salinity has more than doubled since 1990.

In 1992, the aquifer sank so low that the wetland dried up. Water buffalo died; a species of fish found nowhere else in the wild survived only in aquariums. A bird count in 2000 found only 1200, mostly passing through. Local people also suffered.

In 1994, the park started pumping some water back to recreate ponds. It wants to restore a tenth of the lost wetland, but has managed barely half that. Still, the efforts have brought back water buffalo and some birds.

It may be a temporary reprieve. Despite all the pumping, Amman's taps still run dry in summer. People who can pay get rooftop water tanks filled by trucks every two weeks. People who can't, struggle. Demand for water outstrips supply; the stretch of the Jordan river I saw was empty.

And now Syrians are fleeing to Jordan. Ten thousand are already in towns, and with the failure of peace efforts so far, camps are expecting thousands more. The first things the Jordanians erected were water tanks.
They will probably be filled from the Yarmouk river, a major tributary of the Jordan shared by Syria, Jordan and Israel. Control of it was one prize of the 1967 six-day war, which also drove refugees to Jordan.
The vicious circle of conflicts, refugee crises and water shortages continues. With more people in Jordan needing water, less will be available for farmers already struggling with drought. The tiny, reborn wetland at Azraq is at the end of a long and thirsty queue. It, and its aquifer, will be lucky to survive.

Yet Jordan is doing many of the right things. It recycles treated sewage water. It is co-opting local people into saving Azraq. It has reached agreements with neighbours on shared water.
The 2009 national water plan calls for groundwater pumping to be cut to sustainable levels, in favour of innovations like desalination.
Maybe Jordan will succeed. But the plans are in danger of being trampled by another wave of desperate refugees. And above it all looms the threat ofclimate change and continued drought.
Hussein and his colleagues seemed to me like people fighting for something they believe in, a fight as worthy as any in this Arab Spring. I hope Azraq survives. The people need it as much as the kingfishers do.

"The Arab Spring puts a strain on Jordan's ecology", *Debora MacKenzie, 23/04/2012,*
http://www.newscientist.com/article/mg21428615.900-the-arab-spring-puts-a-strain-on-jordans-ecology.html

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

❖ Putting Iran's Water Transfer Project in Perspective

Circle of Blue reporter Codi Yeager's thoughts on water transfer projects around the world.

Last week, Iran started construction on a $US 1.5 billion project that will transfer water from the Caspian Sea to the country's arid central region.

It's not the first time — other major water transfer projects move 2,110 million cubic meters (557 billion gallons) of water each year into this water-scarce region from basins where the resource is more abundant, according to a 2005 report by the National Research Council. The report also stated that population growth and the uneven distribution of water in Iran will likely create chronic water shortages, with the annual average per capita volume of renewable water estimated to drop from 2,000 cubic meters (528,000 gallons) to below 1,000 cubic meters (264,000 gallons) by 2025.

But Iran's water transfer projects pale in comparison to China's $US 62 billion South-North project, which Circle of Blue reported on last year. The feat is expected to transport 44.8 billion cubic meters (11.8 trillion gallons) of water annually from the southern Yangtze River Basin to dry regions in the north by 2050.

Other water transfer ideas floating around include a proposed pipeline from Tasmania to South Australia — capable of carrying 500 million cubic meters (132 billion gallons) of water. Meanwhile, some in the United Kingdom are calling for Welsh water to be sold and transported to drought-hit England, as my fellow Circle of Blue reporter Brett Walton reported at the beginning of April.

"Putting Iran's Water Transfer Project in Perspective", 24/04/2012, online at:
http://www.circleofblue.org/waternews/2012/commentary/editorial-in-the-circle-fresh-focus/putting-irans-water-transfer-project-in-perspective/

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❖ Torture and pressure on residents of Camp Liberty with water shortages

Camp Liberty - No. 25

Torture and pressure on residents of Camp Liberty with water shortages and dodging on connection to the water main at residents' cost

Forcible transfer of the fifth group to Camp Liberty makes the water situation more critical and is absolutely unacceptable

NCRI - While 65 days of the transfer of the first group of residents to Liberty has passed, the problem of water not only remains unresolved but with the population rising has continually become more difficult and the Iraqi government practically uses preventing the inhabitants' access to water as a means of torture to apply pressure on them.

The only source of water supply for Camp Liberty is a water hydrant located 12 km from the camp. Area residents as well as companies in the airport and government agencies use water from this hydrant, such that water tankers sometimes must wait in queue up to four hours and must also wait at the entrance of Liberty for hours. Often a tanker trip to the water hydrant takes more than seven hours!

Accordingly, the residents hardly can provide adequate water for 1600 with limited number of tankers they had taken from Ashraf and by rented tankers. Often under various pretexts, the Iraqi forces prevent water tankers from entering and consequently even the minimum water can not get to Liberty.

Since the fourth group of 400 people came to Liberty, the crisis has worsened and water rationing is in place such that laundry and washing items are coupled with many problems.

Average water consumption per capita is 400 litres in Iraq, 600 litres in the US, 500 litres in Australia and in Europe 300 litres because of frequent rainfalls. Iraqi Prime Ministry Committee tasked to suppress Ashraf residents has set 200 litres of water per capita in Liberty, but the maximum water that comes to Liberty, including all general purposes, is an average of 170 litres, which includes uses such as bakeries, industrial ice-making, washing large garbage containers and garbage trucks, that are not included in per capita calculation. The real per capita rate is 150 litres which is less than one-third of the per capita consumption of water in Iraq.

Liberty residents have continuously raised the water problems with the representatives of Iraqi government, UNAMI and the American Embassy and have provided practical solutions for solving it and are willing to pay the cost themselves. One solution to this crisis is to connect the water main to the city's water network, which passes from one and a half kilometers from the camp. The representative of the Iraqi government refuses to resolve this issue by delaying tactics. The goal is clearly torture and harassment of Liberty residents.

In these unbearable conditions, the forced displacement of the fifth group from Ashraf to Liberty makes the situation even more critical and more unbearable. The transfer of other residents to Liberty before resolving the water issue is anti-human, illegal and criminal.

The Iranian Resistance draws the attention of the United Nations Secretary-General, Special Representative of Secretary-General, High Commissioner for Refugees and the US government to the critical situation of the water in Liberty and calls for immediate action to resolve the water problem and to stop any further transfer to Liberty until this is done.

Secretariat of the National Council of Resistance of Iran

"Torture and pressure on residents of Camp Liberty with water shortages", 24/04/2012, online at: http://www.ncr-iran.org/en/ncri-statements/ashraf/11894-torture-and-pressure-on-residents-of-camp-liberty-with-water-shortages-

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

❖ Can Shared Water Be The Key To Peace?

"Even sewage has a national flag," said Gidon Bromberg, co-director and co-founder of Eco-Peace/Friends of the Earth Middle East (FoEME). Israel Director of the organization for 18 years, Bromberg says he's seen how natural resources, like water, and even human waste, have become political tools in the Middle East regional conflict. A sewage treatment plant that was built for West Jerusalem, for example, does not treat the sewage from East Jerusalem. His goal: to use these very environmental tools to instead find common goals and connection and to build peace.
With water being one of the central environmental issues that the Middle East faces, Bromberg has also created Good Water Neighbors, a project of FoEME that focuses on shared use and protection of local water resources, like the Sea of Galilee, the Jordan River, and the Dead Sea.
Besides lobbying the government of Israel, Palestine and Jordan to stop diverting freshwater from the Galilee and to stop letting sewage spew into the Jordan River, the organization has built an environmental education center in the West Bank village of Auja, run by a local University of Bethlehem graduate, Fadi Jueejat. There Palestinian students learn about recycling of grey water and water conservation in a colorful center surrounded by a playground, benches made of recycled materials and old tires and an organic vegetable and herb garden.

The organization has gained international recognition for being an eco-peace project that uses water pollution issues to bridge national and religous divides. This Sunday, Good Water Neighbors hosted Dr. Vinya Ariyaratne, General Secretary of Sarvodaya, a Sri Lankan non-profit that is working to rebuild the war-torn North and East regions of Sri Lanka. The trip was funded by Tag, an international development non-profit that has helped Sarvodaya build an ecological education center very similar to the one in Auja.
"Any environmental hazard will eventually get to the groundwater," said educator Gilat Partana to the assembled group on Sunday, which included Ariyaratne, his wife, son, daughter, and mother-in-law. Partana is an educator that directs Good Water Neighbors' educational program in West Jerusalem. She, along with a counterpart in Jordan and in Palestine, has created a curriculum that encourages students to act like detectives and directly explore the water problems in their region, using some of the latest technology to map out environmental hazards and find their coordinates with a GIS system.

The children from East and West Jerusalem are then encouraged to meet one another, comparing the maps they've created and discussing together the joint environmental hazards.

"Maybe water and environment is just an excuse for breaking stereotypes," she said. "Afterwards they are on facebook together."

She explained that a third of Jerusalem's sewage, mostly from the Eastern part, flows directly into the nearby valley where it is building up untreated and slowly contaminating the local ecosystem. Without coooperation from the Palestinian leadership, not much can be done.

New playground in Auja
But with a heated Israeli-Palestinian conflict raging, issues of water and sewage often take a backseat, something Good Water Neighbors is fighting to change. In the current status quo, Israel

takes 80% of the country's freshwater, while only 20% flows to Palestine, accoding to Bromberg. Those numbers were decided in a temporary fashion at the Oslo Accords over 15 years ago, with the expectation that the figures would be renegotiated and Palestinians would eventually receive a modern water system like Israelis have. But when Oslo fell through, the numbers stayed put, something that is "shooting the interests of both people in the foot," Bromberg said.

Currently, all West Bank water projects need approval from a joint Israeli-Palestinian water authority, but Bromberg is hoping to change that, claiming that any bilateral agreement could not possible by fair with one of the countries occupying the other. His organization has proposed a new accord that seeks to solve the water crisis even before a political agreement is reached. It includes a proposal for third-party oversight and other best practices that have been developed over the yers by neighboring countries around the world that have shared water resources.

Good Water Neighbors is currently active in 11 different Palestinian communities and is mostly receiving international funding. Local governments have been slow to fund the effort or to respond to its calls–although Israel did agree to stop letting sewage flow into the Jordan, an effort that should have the river (an increasingly important tourist attraction for religious Christians wishing to be baptized where Jesus was) cleaner over the coming years.

"It's really exciting that these years of effort have really produced international interest in the work we've done," Bromberg said.

"Can Shared Water Be The Key To Peace?", 24/04/2012, online http://www.greenprophet.com/2012/04/shared-water-peace/

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

❖ Understanding water availability crucial to long-term resource strategy - SKM

Understanding the availability of water must be a priority for Chile as part of a long-term strategy for water management, Ralph Burch, water and environment manager in Chile for global projects firm Sinclair Knight Merz (SKM), told BNamericas.

SKM signed an MOU with the Chilean government this week to help provide water management solutions for the country, which has been suffering from drought for most of the past three years.

"One of the first priorities is understanding the extent of the resource and who's using it at present. We need to know who the current users are, how much they're actually using and what other demands there might be on those water resources in the future, on a catchment basis. It sounds quite easy, but it's actually quite a difficult thing to do," Burch said.

Part of SKM's agreement with the government involves working with the national irrigation authority (CNR) to promote methods to measure, control and distribute water resources. Gaining a fuller understanding of water availability will help plan for future situations such as drought or an increase in temperature, according to Burch.

"Once you've got that fundamental understanding of the existing situation, you can start to look at the effect of future situations. For example, you can overlay climate change on a particular hydrology regime and do some scenario testing to see what happens if temperatures increase by two degrees in the next 20 years," the executive said.

SKM is working with authorities such as CNR and the agriculture ministry to develop solutions not just at the project level, but also at a capacity-building level within the government and the water sector as a whole.

The agreement was reached after a delegation of Chilean officials visited Australia to learn from the country's water management experience. So far, SKM has identified around 10 initial projects, drawing on its long experience in Australia.

"The issues are very similar to Australia, and you can't address them one after the other - there's a whole series of things that need to be done in parallel to be able to make change within a reasonable timeframe," Burch said.

SKM operates in three regions: Asia Pacific, the Americas and EMEA (Europe, Middle East & Africa), and provides consulting, engineering and project delivery services to the buildings and infrastructure, mining and metals, power and energy, and water and environment sectors.

"Understanding water availability crucial to long-term resource strategy – SKM", 25/04/2012, online at: http://www.waterworld.com/index/display/news_display/1653093964.html

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❖ The right to water: Water cistern demolitions in Hebron area

On Monday April 23, 2012, the Israeli occupation forces destroyed four water cisterns outside of the city of al-Khalil (Hebron). Two of the destroyed cisterns were located in the Abweire area, a small agricultural neighborhood of 400-500 residents northeast of al-Khalil. The other two cisterns destroyed were located in Hal-Houl, south of al-Khalil. The demolitions came just one week after another four cisterns were destroyed in the Meshroona area south of al-Khalil.

Palestinians in these areas, who are located in Area C, are forced to depend on rain water cisterns for their crops and livestock because of unequal distribution of water resources to surrounding illegal, Zionist settlements. The destruction of such cisterns is part of a calculated strategy of forced displacement and ethnic cleansing in occupied Palestine. According to the Israeli organization Diakonia, water cistern demolitions over the past two years have directly affected almost 14,000 Palestinians, among whom several hundred have been forced to leave their homes because of lack of water. International law forbids the targeting of structures essential for the survival of the civilian population.

The day after their water cistern was demolished, activists with ISM visited members of the Ashfour family in Abweire in order to talk and survey the damage. The occupation forces did not stop with removing the top of the cistern, but actually smashed the sidewalls, rendering the structure totally useless. The occupation forces came without warning in four jeeps, an armored personnel carrier, an armored bulldozer, and another armored earth-wrecking machine, along with personnel from the Israeli permits and construction offices. They claimed that the cistern was constructed illegally, without the necessary permits, and began to destroy the cistern.

Within an hour the Ashfour family's hopes for irrigating their crops lay in ruins. According to Hisham Ashfour, the cistern had been built almost ten years ago and served not only his family but about fifty people in his neighborhood. The other cistern destroyed in Abweire was also rendered completely unusable, having been filled in with dirt by an Israeli bulldozer.

"The right to water: Water cistern demolitions in Hebron area", 23/04/2012, online at:
http://palsolidarity.org/2012/04/the-right-to-water-water-cistern-demolitions-in-hebron-area/

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❖ Price and politics complicate Kidron Valley sewage clean-up

Sewage from East Jerusalem has been flowing untreated through the valley for years.
By Zafrir Rinat

Efforts are underway to rehabilitate Jerusalem's Kidron Valley, one of the most polluted valleys in either Israel or the Palestinian Authority. The sewage running through the valley, which begins in East Jerusalem and winds its way eastward down to the Dead Sea, has severely damaged the ecology of the area and threatens the health of local residents.

Last week a meeting to promote solutions to the problem was held near the town of Ubeidiya in the Palestinian Authority, east of Jerusalem. The meeting was initiated by the Ubeidiya municipality, Israel's Dead Sea Drainage Authority and a steering committee comprising a number of Israeli agencies and ministries. The committee, headed by environmental law expert Prof. Reuven Laster, has recently put together a comprehensive program to rehabilitate the valley.

Last week's meeting, held in a tent that had been symbolically placed over the sewage-soaked Kidron streambed, was attended by representatives of Israel's Water Authority and Palestinian Authority Water Minister, Dr. Shaddad Attili.

Jerusalem has in recent years treated sewage from its western neighborhoods at a treatment plant west of the city. However sewage from East Jerusalem has been flowing untreated through the Kidron for years. The Jerusalem sewage is augmented by sewage from Palestinian communities, bringing a total of more than 10 million cubic meters – making the Kidron the most polluted streambed in either Israel or the PA. There are also currently 900 known refuse dumps in the valley.

"I have no other way to describe the life of the people living in these places except as life without human dignity and with no respect for nature," Laster said.

The sewage that flows through the Kidron is currently impounded by the Jordan Valley Water Association before it reaches the Dead Sea, and after basic purification is used to irrigate fields in settlements in that area.

Upstream problem

But that does not prevent the pollution of the upstream portion of the valley. Israel and the PA have for years been unable to agree on where sewage treatment facilities should be built, and Israel had begun studying the possibility of pumping it to treatment plants west of the capital – an expensive and complicated engineering solution. However, the steering committee has developed a master plan based on Israeli-Palestinian cooperation.

"The plan is to build the treatment plant in Ubeidiya, which can be used by the Palestinians for agricultural irrigation," the director of the Dead Sea Drainage Authority, Gery Amel, said, adding that some of the sewage would continue to flow eastward and be treated downstream.

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Tel: +90(312)4302609 Fax: +90(312)4303948 orsam@orsam.org.tr

The steering committee also wants to encourage the Jerusalem municipality and East Jerusalem residents to collect refuse more efficiently.

But the plan is not immune to political tensions. "We will not agree for the sewage to be channeled to another treatment plant and be used to irrigate [agriculture in] settlements," Attili said last week.

Dov Kuznetsov, head of the Jordan Valley Water Association, said he would agree to any division of the sewage the Water Authority agreed to, but that he thought the Palestinian Authority would not be able to afford the operational costs of the sewage treatment plant, or find enough agricultural areas to utilize the sewage.

The Environmental Protection Ministry said that while it had been in on the master plan developed by the steering committee, "we feel the solution chosen cannot be implemented." Building a sewage pipeline in the Kidron would damage the cliffs, the ministry said, suggesting instead channeling most of the sewage to treatment plants west of Jerusalem, leaving 20 percent to be treated by a Palestinian plant.

"Price and politics complicate Kidron Valley sewage clean-up", Haaretz, 27/04/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=4861

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❖ ICL eyes expansion of water treatment activities

Israel Chemicals subsidiary BKG Water Solutions inks acquisition of Scandinavian water treatment company TIAMI

Israel Chemicals is seeking to expand its overseas water management ventures.

BK Giulini GmbH, a subsidiary of ICL Performance Products (ICL-PP) announced that its BKG Water Solutions division has finalized the acquisition of TIAMI VATTENKEMI AB, one of Scandinavia's largest water treatment companies.

The move has been described by ICL as a measure meant to strengthens its strategic position in northern Europe and the Nordic market.

TIAMI is based in Göteborg, Sweden and according to an ICL press release, it provides "a comprehensive array of industrial water treatment solutions, including chemicals, equipment and services.

"The company also develops environmentally-friendly water treatment solutions."

Eli Glazer, BK Giulini's General Manager said that "We are pleased to welcome TIAMI to the BKG family and look forward to integrating its products and technologies into our existing water treatment business.

"We intend to leverage TIAMI's unique product range, strong distribution network and excellent service capabilities to boost our presence in Scandinavian countries."

Charles Weidhas, CEO of ICL Performance Products added that, "BKG Water Solution's purchase of TIAMI is in line with our strategic focus to expand ICL's offering of innovative water solutions and services for the industrial water treatment sector.

"The acquisition of TIAMI will position ICL as a leader in the water treatment industry in Northern Europe."

Israel Chemicals is one of the world's leading fertilizer and specialty chemicals producers, as well as one of the world's largest suppliers of phosphate products, including pure phosphoric acid.

"ICL eyes expansion of water treatment activities", 23/04/2012, online at: http://www.ynetnews.com/articles/0,7340,L-4218946,00.html

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❖ Beijing to see acute water shortage in 2012

BEIJING, April 24 (Xinhua) -- Beijing is expected to face a water shortage of 1.3 billion cubic meters in 2012, accounting for a third of the city's annual water usage, according to local water authorities.

The municipal government will work to keep the capital's water consumption within 3.7 billion cubic meters this year, as only 2.4 billion cubic meters will be supplied by local water resources, Cheng Jing, head of the Beijing Water Authority, said Monday.

The gap is expected to be bridged via a combination of measures, including the use of recycled water, water diversion and moderate exploitation of underground water, Cheng said.

Beijing has been plagued by droughts for 13 consecutive years, with its fast-paced economic development and ever-growing population exacerbating the water shortage, according to Cheng.

The available per capita water usage in Beijing has dropped to 100 cubic meters, about one-tenth of the internationally acknowledged warning level.

Local authorities have tightened water management by setting a ceiling for the city's annual water consumption at 4 billion cubic meters by 2015.

"Beijing to see acute water shortage in 2012", 24/04/2012, online at: http://news.xinhuanet.com/english/china/2012-04/24/c_131547719.htm?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=7969285181-RSS_EMAIL_CAMPAIGN&utm_medium=email

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❖ Major Retailers Contribute To Severe Water Pollution In China: Report

The sassy spring colors flooding into America's stores are also polluting Chinese rivers, according to a new report.

Textile suppliers of Zara, H&M, Ann Taylor, Guess, Target, Disney and Uniqlo, among other big brands, have violated China's environmental laws by contaminating water supplies with chemicals from dyes and printing, according to a new report released from the Institute of Public and Environmental Affairs, a Beijing-based nonprofit whose founder, Ma Jun, won this year's Goldman Environmental Prize for Asia.
The report, entitled "Cleaning up the Fashion Industry," bases its findings on the Institute's online database of 90,000 environmental supervision records from Chinese government agencies, dating back to 2004. As of February, 6,000 of the Institute's records were from textile plants, according to the report.
The report also tracked down the names of 48 international brands who source goods from polluters, in hopes of convincing fashion's big names to establish stricter rules for suppliers.

When chemicals used in dying and printing are released into water supplies, they hurt both humans and animals, causing mass deaths of aquatic life and diseases like cancer in humans, according to the report.
Access to water is limited in China, where one-fifth of cities have unhygienic water supplies and 300 million rural residents lack safe drinking water all together, according to ChinaDaily.
While the Chinese government does regulate water pollution, manufacturers have found a myriad of ways of getting around the rules, including constructing secret pipes or directly dumping wastewater into rivers. Many factories in the Institute's database have violated standards multiple times. "Fines and punishments that are inflicted are insufficient to prevent factories from accruing repeat violations," the report writes.

The Institute hopes that disclosing the relationships between international brands and suppliers who pollute might be more effective. Before releasing its report, the Institute sent letters to the CEOs of the 48 companies outlining the violations and received responses from 16. Many of the international brands named, like H&M, Walmart, Burberry and Adidas had already begun investigating violations. Others, like Abercrombie & Fitch, Puma, Guess and Zara have yet to address or respond to charges.

The naming and shaming strategy has worked in the past for the Institute. Since the nonprofit was founded in 2006, 50 companies, including Nike and Walmart, have begun cooperating with it in order to become more environmentally friendly -- and to get their names removed from its blacklist. Last week, Apple agreed to have one of its factories audited by the Institute, who has been pressuring the company for nearly two years and has released multiple reports about problems within its supply chain.

"Major Retailers Contribute To Severe Water Pollution In China: Report", 23/04/2012, online at: http://www.huffingtonpost.com/2012/04/23/china-water-pollution-fashion-textile-factories_n_1445766.html?ref=business&utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=8975e82088-RSS_EMAIL_CAMPAIGN&utm_medium=email

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❖ Water and will in short supply in China

Across China, the signs of the country's distressed water supply have grown increasingly severe over the past several years. In February, Vice Minister of Water Resources Hu Simi publicly stated "The situation is extremely serious in many areas. With overdevelopment, water use has already surpassed what our natural resources can bear."

Estimates are that some 400 of China's 600 cities are already facing water crises of some sort, most related to either pollution of limited supplies, or in several cases millennia-old aquifers having been completely used up as the region has rapidly industrialized. In 2010, the Ministry of Land and Resources estimated that 57% of the country's underground water should be classified either as "bad" or "very bad".

The 2011 drought in southern China made this issue abundantly clear. For a country with a long history of resource-induced famines and social instability, last year's drought was an ugly reminder of the role one of the planet's most easily overlooked, yet increasingly precious resources, will play as the country develops. Projects like the South-to-North Water Project, the largest man-made water diversion project ever planned, are designed to address the scarcity of water in China's barren northern provinces where most of China's northern provinces must subsist on only 15% of the country's total water supply.

As last year's drought illuminated, the south of China faces its own problems if global climate change throws out of cycle the traditional typhoon season that could be counted on to replenish the region's water supplies. The most recent drought was also one of the most unusual, casually known as a "spring drought", and something China's south has rarely experienced.

Julien Bedin, a senior research analyst based in Beijing at the China Greentech Initiative, shared that "in 2011, severe droughts and floods across China caused over RMB 230 billion [US$36.5 billion] in economic losses and led to hardship for 114 million people."

China's water supplies have always been a concern. The country's Ministry of Water Resources has said that China's per capita average is only 28% of the world's standard. Another way to put this is that China must sustain life for 20% of the world's population with only 7% of the world's water supply.

This problem, not one of the country's making, has been made that much worse as rural-to-urban migration patterns have intensified, which further localizes the strain on cities with limited water resources.

In addition, China's impressive modernization has put incredible strain on its water supplies, largely because of the pollution caused as poorly regulated industries dump waste into lakes, streams and rivers.

Western travelers to China may shrug their shoulders at the admonition to use bottled water for drinking and brushing their teeth, choosing to see this as the sort of warning common in

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any developing nation; however, the problem in China is much more acute, a reality that every housewife in China who must boil water for drinking, cooking and cleaning would be quick to attest to.

The Global Water Risk Index, a forward looking database which captures country-specific and global data on existing water use for agricultural, industrial and power-generation has projected forward the likely parts of the world where water is likely to become a problem. Its most recent map shows that China, in particular the northern region, has a greater than 75% probability of encountering water scarcity by 2030.

The central government in Beijing is quickly coming to terms with painful decisions and trade-offs that the country's water shortages are going to make necessary. The most recent five-year plan made particular note of the need for the country to draw down its use of water through a combination of mandated water usage levels in relation to economic output as well as limiting water-intensive industrial and power-generation plans in areas of high water distress.

Beyond these steps, Bedin stated that "China's dire water situation is pressuring central authorities to more closely monitor water-intensive users including the agriculture and industrial sectors. Agriculture accounts for more than 60% of China's water consumption, calling for major improvements in irrigation efficiency." For a country whose second most pressing strategic challenge may be how to feed itself, the role water scarcity could play in further intensifying its ability to nurture a self-sustaining agricultural sector should not be overlooked.

Western businesses, in particular operators in the clean technology space, have been quick to recognize the commercial opportunity inherent in helping China solve these problems.

As Bedin pointed out, "Financial investors are increasingly active in China's water sector in 2011. Private equity and venture capital [PE/VC] and investments increased dramatically from US$ 50 million in 2010 to roughly US$ 400 million in 2011. Many of these investors are exploring the market potential for advanced water-related technologies, either domestically developed or imported from technically-leading foreign markets including Israel, France or Japan."

The solution, as Bedin was quick to add, is not purely technological: "In many cases where advanced technology has been deployed, for instance membrane treatment solutions, the long-term performance is often falling short of initial specifications."

Problems with deploying advanced technologies have long bedeviled China's attempt to modernize key industries, and water appears to be no different. Bedin shared that these problems are likely related to "improper use or maintenance by ill-prepared staff. It is fairly common to see lower-end solutions with lower initial capital costs favored over advanced technologies with no considerations given to lifecycle costs and performance."

China is not short the financial nor human capital to pursue solutions to its water scarcity

problem; if anything, the most pressing challenge to China is whether its municipal leaders will be able and willing to make the trade between increased economic development at the local level in order to address water shortage issues that may be felt most severely outside their own city or province.

Within a political culture that has prized economic growth above almost anything else for most of the last three decades, getting local leaders to accommodate slower growth by tabling water-intensive industrial and power-generation plans will be easier said than done.

Even if China were today able to simply turn on a dime, the question of whether it would be too late ominously hangs over the entire issue of the country's water shortage. Elizabeth Economy, a Senior Fellow at the Council of Foreign Relations, is one of the pre-eminent scholars on China's environmental and water scarcity challenges.

She testified at the US-China Economic and Security Review Commission in January that, relative to China's water supply problems, "a number of factors, such as corruption, lack of human and financial resources, and a weak policy environment have often undermined fulfillment of Beijing's goals. A preference for large projects also hampers effective planning." She went on to state "None of these policies-taken alone or collectively-has been sufficient to address the challenge at hand."

Many factors that China's economic ascent presents the country's leadership with, ranging from the need for clean energy to limited supplies of oil or other commodities, seem to be challenging yet surmountable. Water, like that of its closely related cousin of sustainable agriculture, seems to be a factor that will not accept timid or incremental reforms.

It remains the simplest and most necessary natural resource for the Chinese people and crosses over matters that tie together economic policy, environmental degradation and social stability. Whether Beijing has the political will to act persuasively in advance of a major crisis will likely be one of the first tests the new leadership will have to face as 2012 draws to a close.

"Water and will in short supply in China",Benjamin A Shobert, 24/04/2012, online at: http://www.atimes.com/atimes/China/ND24Ad01.html

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❖ Xayaburi Dam construction to continue?

BANGKOK, April 25 (UPI) -- Protesters called for a halt to construction on the proposed $3.8 billion Xayaburi dam project on the Lower Mekong River in northern Laos.

Converging on the headquarters of Thai construction company Ch. Karnchang's annual shareholders meeting Tuesday in Bangkok, civil society groups and community representatives from villages along the Mekong said the company is defying a Mekong River Commission's ruling made last December.

MRC -- comprised of Laos, Thailand, Vietnam and Cambodia -- is the core body through which the four countries negotiate and discuss trans-boundary effects of management of their shared river. The December ruling called for the Xayaburi project to be delayed until a comprehensive environmental impact study can more properly identify potential risks.

At issue with the protesters is Ch. Karnchang's announcement last week to the Thai Stock Exchange that it had signed a $711 million construction contract with the Xayaburi Power Co. for the 1,260-megawatt hydro project, which is opposed by environmentalists and villagers.

The Bangkok Post reports that 3,000 residents at the construction site have already been relocated.

Plew Trivisvavet, chief executive officer of Ch. Karnchang, speaking at the shareholder's meeting, said the Xayaburi dam project is vital for the future success of the company, The Nation newspaper reports. He said he expects the company will earn a return of 10 percent on its investment in the project.

The longest river in Southeast Asia, the Mekong stretches 3,000 miles to the South China Sea and is home to more than 700 species of freshwater fish, including the endangered Mekong catfish. The Lower Mekong supports nearly 60 million people who depend on it for their livelihood, says the World Wildlife Fund.

Laos should look beyond the short-term benefits of the dam, says International Rivers, a California-based water rights group.

"This project may generate some money for the government but in the long-term the government should look at possible serious impacts to the Mekong River and the whole region," Pianporn Deetes, a coordinator for the organization, told Radio Free Asia.

"In addition, the dam will create a conflict in the region. The government should think about the people and their children, who will have to move to new villages where not much land will be available for them to cultivate."

Following Ch. Karnchang's announcement last week, Cambodia threatened to take Laos to court if it allows the company to continue with construction of the Xayaburi without regional consensus.

"There must be a discussion before Laos can proceed with the construction. If Laos has decided unilaterally, then according to law, we can file a complaint to an international court," said Sin Niny, permanent vice chairman of Cambodia's National Mekong Committee.

"Xayaburi Dam construction to continue?", 25/04/2012, online at: http://www.upi.com/Business_News/Energy-Resources/2012/04/25/Xayaburi-Dam-construction-to-continue/UPI-47931335371706/

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❖ Thai protestors rally against Xayaburi dam construction

Protests over construction of the controversial Xayaburi hydro dam project in northern Laos could spread from Thailand to Cambodia as communities along the Mekong River begin to feel its negative effects, an International Rivers programme director said yesterday.

About 70 Thai villagers who rely on the Mekong River for their livelihoods rallied outside the offices of developerCh.Karnchang in Bangkok on Tuesday.

The protest came after the company announced last week it had signed a construction deal with Xayaburi Power Company to build the 1,260-megawatt dam, the first of its kind on the Lower Mekong River.

Ch.Karnchang, which said construction began on March 15, owns 30 per cent of Xayaburi Power Company.

"We are calling for Ch.Karnchang to immediately suspend the Xayaburi construction until the commission's study is completed," the protesters said in a statement.Ame Trandem, Southeast Asia programme director at International Rivers, said sources had told her Ch.Karnchang has already hired as many as 5,000 construction workers on three-year contracts.

"It sounds like construction has started on the dam itself. This is essentially a violation of the 1995 agreement, because the four countries [Cambodia, Laos, Thailand and Vietnam] are yet to agree," she said.

Under this agreement, Mekong River Commission [MRC] countries must consult one another on projects that could affect other members.

"If construction continues, people will feel the impact. . . you are changing the ecosystem of the river. There will be fewer fish . . . communities will suffer.

"Given it will affect their livelihoods . . . [Cambodians] will definitely join the protests."

Protesters at Tuesday's demonstration, which coincided with Ch.Karnchang's shareholders' meeting, complained the company was contravening another MRC agreement made in December that an environmental impact study was needed before the project could begin.

Te Navuth, secretary-general of the Cambodia National Mekong Committee, told the Post on Monday that Japan had agreed to fund this study.

Surasak Glahan, communications officer for the Mekong River Commission secretariat, said member countries were still discussing "scope, timelines and methodology" for the study, as it involved other MRC development partners.

"All four member countries are still showing their commitment to further study by participating in discussion on the matter," he said, adding that the issue of Cambodia launching legal action if Laos proceeded had not been raised.

Surasak Glahan said the Lao government had still not told him whether construction on the dam had begun.

Marc Goichot, the WWF's sustainable hydropower manager for the Greater Mekong region, said the MRC needed to take it a step further.

"WWF would like to recommend that a group of representatives from the MRC council is appointed to visit the dam site to observe and monitor," he said. "It is clear construction workers are present at the site."

Ch.Karnchang CEO Plew Trivisvavet told the Bangkok Post the project would have "limited environmental impact".

"All concerns regarding the environment were taken into account in the project's design and environmental study," he said.

"Thai protestors rally against Xayaburi dam construction", 26/04/2012, online at:
http://www.phnompenhpost.com/index.php/2012042655799/National-news/thai-voices-join-chorus-against-dam.html

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❖ Construction resumes on controversial Mekong dam project in Laos

Construction has resumed on a controversial dam in the lower Mekong River in Laos, despite an agreement to suspend the project.

The $US1.7 billion Xayaburi dam project in northern Laos was put on hold last year, after concerns it could disrupt the river downstream.

Laos' government agreed to conduct further studies into the impact of the dam, after pressure from neighbouring Mekong countries.

With work resuming, Cambodia has reportedly threatened to take Laos to an international court, although it's unclear which one.

The Director of the Australian Mekong Resource Centre, Professor Philip Hirsch, has told Radio Australia the resumption of work signals a change in relations between the Mekong countries.

"What has changed is the signalling by one country that it may be prepared to go ahead unilaterally, despite the agreement and despite the studies that are being conducted by the four countries," he said.

"To date, there has been no discussion of legal action by one country against another."

He says the agreement to halt construction is a "loose agreement" at best.

"The body that administers it, the Mekong River Commission, has no teeth."

The project is owned by a Thai company, and 90 per cent of the electricity produced by the dam would be sent to Thailand.

Mr Hirsch says despite this, some in Thailand are still opposed to the project.

"Including the large number of people who live along the Mekong River, which borders Laos and Thailand, who are concerned about their own lives and livelihoods."

Observers had hoped the agreement was a sign that the Mekong nations were moving towards a more cooperative and sustainable approach to managing the river.

"Construction resumes on controversial Mekong dam project in Laos", 23/04/2012, online at: http://australianetworknews.com/stories/201204/3487294.htm?desktop

❖ Mali: Migration, Militias, Coups and Climate Change

The world is suddenly paying attention to the oft-ignored North African country of Mali, as it is racked by its most recent in a long string of crises: a *coup d'etat*. This political and constitutional crisis sits atop an already extremely vulnerable situation – a volatile mix of climate change, drought, food shortages, migration and immobility, armed insurrection and heavy weapons proliferation that threaten to plunge the country into a state of instability not unlike Somalia. As the international community, including the UN Security Council, moves to act on this crisis, it will be important to consider all the identifiable sources of Mali's insecurity in order to get the solutions right.

From model to mayhem?

Mali has been described by some as a benchmark country in Africa, where democracy had put down healthy roots over the past two decades. Yet on March 21, a military junta seized control of the government in Timbuktu, ousting the democratically-elected President Amadou Toumani Toure from power. The rationale, according to military spokespersons, was that the government had failed to put a lid on the separatist Tuareg rebellion in the north (a situation we covered in a previous blog.) Soon after, on April 4, the UNSC issued a strongly-worded Presidential statement condemning the coup, and urging military leaders to restore power to civilian control. Since then, the coup leaders have committed to a framework agreement "for the restoration of constitutional order in Mali," but a positive outcome remains uncertain.

Insecurities under the surface

Despite some previous descriptions of Mali as a success story, significant tensions were seething under the surface all along. The coup came amidst a backdrop of a series of old, perennial insecurities in Mali, and recent ones created by rapid political changes in North Africa.

The first is the aforementioned armed rebellion led by nomadic Tuareg tribesmen, which has been calling for separation from the south for over two decades. In October of last year, these militants formed the the National Movement for the Liberation of Azawad (MNLA), and proceeded to violently wrest control of a significant swathe of northeastern Mali, with no signs of slowing down. A few weeks following the coup, the Tuareg managed to seize the "major garrison towns city of Kidal, Gao and Timbuktu," prompting a chastened Malian military leadership to promise a handover to civilian control once elections could be held. As of today, the Tuareg control most of the country's northern territory.

The second is the recent arrival of the Algerian Salafist offshoot, al Qaeda in the Islamic Maghreb (AQIM), onto the Mali political scene. On April 4, the UN Security Council expressed serious concern about this entity, warning that Islamist extremists from AQIM and the Tuareg could take advantage of the instability caused by the coup to sow further chaos and advance sharia law.

The third is the result of the recent political instability and revolutionary changes in both Libya and Côte d'Ivoire. As highlighted by the Economist, these changes have led to both a proliferation of heavy weapons from Libya into Mali, and an exodus of Malians who once lived and worked in Libya

and Côte d'Ivoire back to their home country. According to the UN Office for the Coordination of Humanitarian Affairs (OCHA), the latter phenomenon has led to a severance of remittances for the families of emigrants, who relied on that money to sustain themselves, thus creating an atmosphere of desperation for both returnees and their families. Furthermore, as Libya's recently-deposed ruler Muammar Gaddafi had given refuge to Tuareg militants, many of them have fled back to Mali, adding fuel to the separatist fire.

A fourth insecurity is the extended drought in Mali and the broader Western Sahel, which looms over all of the above, threatening to multiply the security and humanitarian breakdown even further.

Drought, climate change and immobility

Though much of the world wasn't paying attention to Mali before the coup, the humanitarian community was. Late last year, organizations such as Oxfam warned of a drought in Mali, similar to the one that has plagued countries in the Horn of Africa, and the Middle East. Concerns were raised over the lack of international support for the country because of fatigue over massive humanitarian relief efforts in the Horn – particularly Somalia. The drought has proceeded apace, driving hundreds of thousands of Malians away from drought-stricken villages between February and March, according to the UN. And though the humanitarian community did an outstanding job of preparing for the drought, through early-warning and well-coordination preparation, they could not have been prepared for the rapid deterioration of the country's political condition.

Enter climate change. Security analysts often refer to climate change as a "threat multiplier" or "accelerant of instability" – a phenomenon that exacerbates a range of existing problems. Mali is a textbook case of this. As we mentioned recently in another piece on the Sahel, and as highlighted in a recent report by Michael Werz and Laura Conley at the Center for American Progress, climate change has been identified as a probable factor in the recent drought:

According to at least six studies of this phenomenon, highlighted by UNEP in 2006 (see page 3), "the second half of the 20th century has witnessed a dramatic reduction in mean annual rainfall throughout the region." A 2005 NOAA report attributed the low rainfall to changes in sea surface temperature (likely caused by a combination of natural variability and human-induced change), and both a NOAA study in 2006, and another by Shanahan et al in 2009, attributed drought in the West African Sahel to the Atlantic Multidecadal Oscillation, which is responsive to sea surface temperature changes.

And though influxes of migrants from nearby states are raising tensions, the drought also threatens to worsen the less-explored phenomenon of "trapped populations" in Mali. Given that Mali is one of the poorest countries in the world, many of its people neither have the money, nor the connections, to freely move either within, or out of, the country. According to geographer Dave Thomas at Oxford University, "The people we should really be thinking about are…those who stay behind, who may wish to migrate but can't…They are trapped, they are the most vulnerable." Though it is of course important to address the concerns of both refugees and the immobile, this is an important and often overlooked problem in Mali and elsewhere, and drought can quickly lead to famine for these trapped populations (we previously discussed this phenomenon in an article titled: "No Way Out: Climate Change and Immobility").

Focusing solutions on the identifiable drivers of unrest

Mali is an example of where the humanitarian community was prepared to deal with the predictable, but could not have prepared for the unpredictable – the rapid collapse of the country's government and the subsequent advance of the Tuareg insurgents. This kind of uncertainty will probably never go away. However, a number of the drivers of instability in Mali, such as certain long-standing political grievances, the free flow of heavy weapons and international terrorist organizations, drought and the climatic changes that exacerbate that drought, can now be identified with a reasonably high degree of certainty. These should be the focus of national, regional and international efforts to resolve the conflict in Mali, reconstruct its institutions of government, and improve the security and resilience of its population

"Mali: Migration, Militias, Coups and Climate Change", 23/04/2012, online at: http://climateandsecurity.org/2012/04/23/mali-migration-militias-coups-and-climate-change/

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

❖ Tamanthi Dam a blessing for India, a curse for the Nagas ?

A Naga International Support Center, NISC A human rights organization

http://www.un.org/News/Press/docs/2007/ga10612.doc.htm Already in 2004 India signed the contract to build a hydroelectric 1200 megawatt dam project on the Chindwin River Burma/Myanmar in the middle of Naga areas. This was done in the full knowledge of dealing with an extremely repressive military regime which then hardly made ripples in the still waters.

This is different now!!

Now that the policy of the Indian and Burmese Governments are known, it has become obvious that the hydro-electric generating capacity in effect means that India gains a foothold in Burma. Though, of course, it could use the generated electricity for its rapidly expanding industries, the main idea for stepping over the international border of Burma/Myanmar is to put the Look East Policy into practice; to gain access via Burma to Southeast Asia (Moreh Mandalay Myawaddy Bangkok and beyond) as well as to China via the to be revived Stillwell Road. And so a dam in the Chindwin with a Burmese Government depending on the export of power to India means an interrelating economy with accompanying politics should make this geopolitical policy possible.

But what about the Nagas?

See the attached project plan which shows the villages which will vanish once the dam is constructed. Were the Nagas heard? Did they agree? Were they duly compensated in land, funds, perspective after their losses? No, no and no, and it does not stop with the Naga Peoples either. When one scrutinizes the Indian track record regarding Indigenous Peoples one discovers all Indigenous Peoples are treated badly; they are oppressed, their land is taken and they are forced to do as they are told, in fact they are treated worse than Dalits.

India stepped over the border and into Burma to take advantage of the Nagas there. Though Nagas of India protest in Delhi against the Hydro electric Dam project and Nagas of Burma in Burma/Myanmar, the project is still being constructed. So, rather than criticizing Burma for its coercion on the Nagas and the suppression it exerts on practically all indigenous, even though a democratic spring seemingly takes effect, it is India which profits from it most; directly for energy and indirectly politically.

Hence: the Naga International Support Center, NISC, tells the Government of India:

- to immediately stop the project to allow a thorough but impartial feasibility study on the effect on the Naga people, the effects on the ecology and the river system to be conducted. And only

- when this feasibility study warrants a go ahead that the Governments of India and Burma/Myanmar then should make sure all important factors affecting the Nagas of the Sagaing District of Myanmar/Burma are dealt: full compensation in suitable land, housing, ample lump sums to enable them to start a new life.

see the facts and figures attached and see the two UNO documents: one of which is the United Nations Declaration on the Rights of Indigenous Peoples and the list of nations which signed it; India and Burma/Myanmar both signed this declaration. Yet, both nations do not implement what they signed and this specifically concerns articles 3, 4, 5, 27 and article 28.

http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

"Tamanthi Dam a blessing for India, a curse for the Nagas ?", 27/04/2012, online at: http://e-pao.net/epSubPageExtractor.asp?src=news_section.Press_Release.Press_Release_2012.Tamanthi_Dam_a_blessing_for_India_a_curse_for_the_Nagas_20120427

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

❖ Long drought threatens Mongolia's main river

ULAN BATOR, April 24 (Xinhua) -- Mongolia's main river is in danger of drying up due to a continuous drought, prompting the government to call for water-saving measures.

Minister of Nature, Environment and Tourism Damdin Tsogtbaatar made the appeal on Tuesday after visiting the Tula River, which has seen some sections of its riverbed exposed.

Tula is the most important domestic water source for residents in the country's capital. Its drying up not only affects Ulan Bator's environment but also threatens the water supply for more than 100 million residents, nearly half the country's population.

The long-lasting drought and increasing desertification and reduced vegetation along the river were believed to be the main causes.

"Long drought threatens Mongolia's main river", 24/04/2012, online at: http://news.xinhuanet.com/english/world/2012-04/24/c_131548688.htm?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=7969285181-RSS_EMAIL_CAMPAIGN&utm_medium=email

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❖ Taps must not run dry

THE DRAFT National Water Policy 2012 released for comments earlier this year seeks to establish a 'framework law' governing water according to which each state/UT is to enact appropriate legislation, as water is a state subject. The total quantity of usable fresh water annually available in India is fixed, but demand is increasing due to expanding agriculture, growing population, urbanisation and rapid industrialisation. Many parts of the country are under water stress, leading to excessive exploitation of ground water. Rainwater harvesting can be done but greater efficiency in water use is potentially the most effective solution. In this context, many of the principles enunciated by the draft policy are timely and essential.

The policy envisages certain controversial departures from traditional approaches. Common law as well as the existing Indian Easements Act 1882 upholds the principle that access to and use of groundwater is a right of the landowner. The draft policy, however, provides that all water resources shall be managed as a community resource, held by the state, under public trust doctrine to achieve certain collective goals. Although laws to control groundwater resources have been enacted over the last decade in Kerala (2002), Andhra Pradesh (2002) and Goa (2007), the common law principle upholding the landowner's right is likely to continue in most parts of the country. Overexploitation of groundwater is often related to industrial use, cash crop agriculture, or water trading to meet the demand in urban areas. These can be tackled through means other than taking away a traditional right of the individual landowner. Viewed in the light of the Kerala High Court judgment in the Plachimada case (2005) which upheld the landowner's right, this move seems like a fresh ploy to appropriate groundwater resources for industrial use, albeit on the pretext of preventing overexploitation.

The draft NWP 2012 provides for a minimum quantity of water required for human sustenance for all citizens and the ecosystem of rivers. It is proposed that after meeting these 'pre-emptive' needs, water will be used as an economic good. In other words, water will be priced as per a tariff regime to be decided by each state. Water tariff shall reflect the recovery of the full cost of administration, operation and maintenance of the water resources projects. Curiously, the draft policy is silent on the principle of differential pricing according to end-use category, a long-established principle followed for power tariffs. In fact, much higher water tariffs are a must for industrial use and cash crop cultivation, since such use is often likely to lead to overexploitation. Price bands for different offtake volumes should also be considered, since industrial use tends to grow from year to year.

Alarmingly, the draft policy also proposes that the government should stop being a service provider and become a regulator of water use and management. Water-related services should be 'transferred to community and/or private sector under private-public-partnership model'. Water User Associations (WUAs), to be vested with statutory powers, shall bear responsibility for water management at the local level. This proposal has the unhappy provenance of being a World Bank conditionality, typically invoked when, according to WB, 'poor governments are often too plagued by local corruption and too ill equipped to run public water systems efficiently…' It is not clear whether the UPA II government has accepted such a description of its own functioning.

The obstacle to drinking water security in rural areas is overexploitation for industrial and agricultural uses and the attendant pollution. In urban areas, the proposed privatisation of water will lead inevitably to steep increases in water tariffs, unrelated to actual costs of supply. The draft policy does not even suggest that private investment will be needed or forthcoming. Such a move must be widely debated in public fora before being proposed.

In the Indian rural environment, the voluntary establishment of WUAs with statutory powers and onerous responsibilities of water distribution and maintenance of water resource projects seems prima facie infeasible.

If such WUAs also end up managing the supply of water for 'pre-emptive' sustenance needs through the same infrastructure, how will they avoid the resultant conflict of interest? For a typical rural unit, the *Panchayat*, representing all citizens, will still remain the best bet for community management of water resources.

IN THE case of families affected by water resources projects, it is proposed that the cost of rehabilitation and compensation to the project-affected families should be borne by project-benefited families through adequate pricing of water. The rights to compensation of the affected families must not be subject to market considerations, and any such move will be tantamount to administrative dereliction. The state can and must unconditionally bear the costs of protecting the rights of the affected families. It is expected that climate change will cause temperatures to rise in many parts of the country and subject more areas to water stress resulting from erratic rainfall. The impact on agriculture can be disastrous. Our best option would be to shift from water-intensive crops to climate-resilient crops such as *bajra, jowar* and *ragi.*

This runs counter to the agricultural strategy we have been pursuing for 40 years, where 57 percent of the area under food grain cultivation is used for growing wheat and rice, and 72 percent of that area is irrigated. Rice and wheat are grown using high-yield variety seeds with as much as 4,000 litre water to produce 1 kg rice. Prolonged application of chemical fertiliser has rendered 25 million ha of our agricultural land acidic, reducing their productivity by 60 percent. By switching to traditional modes of cultivation, we can not only regenerate such lands but also save on precious water. However, inputs-based cultivation of rice and wheat has been the cornerstone of our agricultural strategy for several decades now. Changing course on considerations of water conservation alone would amount to a major shift in government policy. The draft policy, however, offers little more than umbrella terms like 'sustainable agriculture' by way of strategy.

Currently, the greatest threat to our riverine ecosystems is indiscriminate — and often illegitimate — mining of sand from riverbeds. The situation is particularly grave in Tamil Nadu, where drying up of major rivers and depletion of groundwater resources in the surrounding areas due to poor recharge are very much in the offing.

Thus preservation and conservation of water resources extends to other domains where supportive laws need to be enacted and enforced. The draft policy must be revised to make it more realistic, respect common law rights and avoid handing over responsibility for water distribution and management to private parties without due cause.

"Taps must not run dry", 25/04/2012, online at: http://www.tehelka.com/story_main52.asp?filename=Fw250412Taps.asp

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❖ Dams threaten pristine corner of India

PASIGHAT, Arunachal Pradesh — From the middle of a hanging bamboo bridge over the Siang River, the distant village of Pongging is barely visible. A light rain has been falling all morning, shrouding the village in mist.

One day soon, Pongging won't be visible for a very different reason. The Lower Siang hydroelectric project, one of the many controversial dam projects planned for Arunachal Pradesh in northeastern India, will submerge the village along with vast lands belonging to the Adi, one of the largest of the state's roughly 20 indigenous tribes.

Despite the fact that the planned dam would annihilate his village, Tone Daying, an affable young schoolteacher, says his people hardly get a say in the decision-making process.

“These are our ancestral lands, so they have a very high emotional value for us,” he explains. “But my village does not have a large population, so our opinion does not matter in these decisions," which ultimately belong to the government.

Daying's is a simple statement, and it neatly encapsulates the debate over the proposed construction of more than 150 dams in the state of Arunachal Pradesh.

Read Dam Nation Part 1: How many dams can one state hold?

These aren't your average dams, as far as India is concerned. Elsewhere in the country, dams have become controversial for displacing huge numbers of people and not properly compensating them for their land or providing adequate resettlement facilities.

By contrast, Arunachal Pradesh is sparsely populated, and many in Pongging will actually be well compensated for the loss of their homes, at least judging by the usual standards of dam builders in Asia.

The controversy in Arunachal Pradesh, then, is more about the potential loss of dwindling forests and rare tribal cultures — it's following a different storyline, and a confusing one.

Many say that dam builders and government officials have used this confusion to their advantage, trampling environmental regulations and opposition from local activists.

"The government of India says that Arunachal Pradesh will be the powerhouse of India, producing 50,000 MW," says Vijay Taram, a lawyer and spokesman for the Forum of Siang Dialogue. "But no government is concerned about how much forest we are going to lose for producing this power."

A new paradigm

The issues confronting policy makers, dam builders and anti-dam activists here are different from those posed by previous Indian projects like the Sardar Sarovar Dam on the Narmada River in Gujarat. Resistance to those projects has drawn international attention — and support from celebrities like author Arundhati Roy and Bollywood actor Amir Khan – because they would displace hundreds of thousands of poor villagers who have little power to negotiate on their own behalf. Because of the numbers of people involved, adequate resettlement packages are too costly for developers to concede without a fight.

The contrast is sharp in Arunachal Pradesh. Though they are small in numbers, the state's more than 20 indigenous tribes have not been beaten down by more powerful groups, the way that other tribal people and low-caste Hindus of the plains have been.

Historically, first the British and then independent India protected Arunachal's tribes from domination. Even today, non-tribals are barred from owning land, and Indians from other regions and foreigners alike require a special permit to travel even for limited periods in the state — so it's not possible for dam proponents to crush local resistance with imported goons.

So, too, community solidarity (within, though not across, tribes) and cultural practices like the Adi's traditional court system, called kebang, makes Arunachal's people tough negotiators.

Read Dam Nation Part 3: Cultures in danger

But not strong enough to stop projects altogether.

"The communities are very small here," said Tongam Rina, editor of the Arunachal Times, a leading local daily. "It's very easy for [a developer] to say, 'We're going to give you 2 crores [$400,000] each. Please keep that other patch of area. Relocate.'"

One reason is that today's projects are so attractive is that they promise huge profits. In the past, dam projects were the purview of state-owned companies like NHPC Ltd., formerly National Hydroelectric Power Corp., or NEEPCO, the North Eastern Electric Power Corp. But now a new national policy allows private power producers to sell electricity directly to factories and consumers, from which they can earn a larger profit, instead of the state electricity boards.

"Earlier, dam and hydro developers, particularly NEEPCO and NHPC, the first developers to enter the state, never ever consulted our community," said Anthony Bamang, an anti-dam activist who recently joined the government, much to the dismay of many of his former activist cronies.

"Now [dam builders] are talking with us. So we also got some opportunity," he said.

Many activists characterize Bamang as a sellout. But the "opportunities" that he's talking about include the most lucrative compensation packages that India has ever seen, according to one national anti-dam activist.

For those who will lose titled land from the Lower Siang dam, there's enough money to overcome the reservations of all but the most diehard environmentalists. For people who lose access to traditional lands held collectively, the state government adopted its own resettlement policy, more generous than the national rules on resettlement.

The huge profits at stake for private firms means there's plenty left over for government coffers.

"To build a dam in Arunachal Pradesh, all you need is money," said Taram, the spokesman for Forum of Siang Dialogue. "You don't need any experience. You don't need any expertise. All you do is float a company, and pay the so-called upfront money to the state government, and you get a contract."

The might of money

Rich as it is in natural beauty and resources, Arunachal runs on the dole. And in the hydropower boom, the sudden addition of private funds to the usual flow has given "the mammaries of the welfare state" the force of a firehose, to use novelist Upamanyu Chatterjee's phrase.

Between 2005 and 2009, for instance, the state government took in around $200 million in fees and so-called upfront payments for allotting dam projects to developers, according to the state Department of Hydro Power Development. In two of those years, receipts for upfront payments amounted to 10 percent of the state's entire budget for expenditures on public programs.

It's not possible to draw a direct correlation, but over the same period, the personal assets of the average serving member of parliament from the state more than tripled, according to mandatory asset declaration forms analyzed by the Association for Democratic Reforms. The declared wealth of then-Chief Minister Khandu, for instance, rose from around $930,000 in 2004 to around $4.8 million in 2009.

In a letter to the prime minister, the opposition Bharatiya Janata Party (BJP) alleged that many of these deals included kickbacks for local politicians — a common phenomenon in India — and called for a Central Bureau of Investigation probe into the allotment of contracts.

An official from the state Department of Hydro Power Development declined to meet with GlobalPost and did not respond to questions sent by email. But the BJP's allegations against their arch rivals in the Congress were never substantiated by an official investigation and no charges were filed.

Environmental activists, however, say that it doesn't really matter. Even if the upfront payments were accepted and processed legitimately, the very practice of accepting such large sums of money in advance has subverted the environmental impact assessment procedures needed to obtain clearances from the environment ministry.

Read more: Old problems plague new India

"The public hearing comes under stage 11, almost at the final stage [of the environmental impact assessment]," said Bamang, who agreed to talk to GlobalPost in his private capacity as an activist, rather than a representative of the Congress party or the government.

"Almost 50 percent of the money has been invested, so it is too late for the public to participate. Before that there is no space anywhere to participate. So itself the [environmental impact assessment] is difficult for us," he added.

A tragedy of errors

Government regulations require that environmental impact assessments be conducted by accredited outside agencies. But these consultants are selected and paid by the developers of the proposed project, so it stands to reason that a reputation for rejection would soon put them out of business.

No need to worry on that score, according to experts like Sagar Dhara, who conducted such assessments for 15 years before he set up an environmental NGO called Cerana, in Hyderabad.

In a study of eight impact assessments for coal-fired power projects in the state of Andhra Pradesh, for example, Dhara found consultants made egregious errors like ignoring the cumulative effects of many power plants and using air quality models not validated in India, according to India's Business Today magazine.

Yet when they screw up, the juggernaut just keeps rolling.

"There is no independent oversight or accountability mechanism for unacceptable [environmental impact assessments]," representatives of the South Asian Network on Dams, Rivers and People and similar organizations wrote in a letter challenging a World Bank decision to end its 30-year moratorium on financing for Indian dam projects.

Read Dam Nation Part 4: Adventure alternative

Accountability may be especially problematic in isolated, sparsely populated Arunachal Pradesh.

For example, the organizations argue in the letter that in 2004, power company NHPC tried to push through an assessment for the Middle Siang Hydroelectric Project without providing the executive summary of the document to area residents in the local language — a mandatory condition. Moreover, the assessment neglected to include the impact of items like the construction of access roads, and it did not consider the downstream impact of the project.

Locals succeeded in blocking that effort, but NHPC was free to try again, and again, and again, grinding down resistance.

Similarly, Assam-based naturalist Anwaruddin Choudhury found serious shortcomings in assessments for the Kameng, Lower Subansiri, Middle Siang, Tipaimukh and Dibang hydroelectric projects, according to a report by activist Neeraj Vagholikar.

For example, the assessment for the 1,000 MW Siyom project listed only five bird species in an area with more than 300, and one of those five does not exist, Vagholikar writes. The assessment for the 600 MW Kameng project incorrectly identified animals like the red panda, pangolin and porcupine as herbivores.

And the assessment for the 2,000 MW Lower Subansiri project listed only 55 species of fish in a river that has at least 156. It also reported an area called "the Arctic" in the Eastern Himalayas — perhaps an example of cutting and pasting from another study, which is reportedly a common feature of many assessment reports.

Perhaps most dramatically, no agency has so far undertaken a study of the cumulative impact of dams on all these tributaries of the Brahmaputra on communities downstream in Assam and West Bengal — though India's Central Electricity Authority has reportedly agreed to conduct one, now that several of the projects are well underway.

Too little, too late? Probably.

A major issue is that officials responsible for safeguarding the environment appear to be prioritizing financial and developmental goals.

In February, India's Environment Minister Jayanthi Natarajan cleared the Lower Demwe Project on the Lohit River despite strong objections from a majority of the Standing Committee of the National Board of Wildlife and an assessment report replete with errors, according to the India-based news and commentary site, FirstPost.com**.**

B.S. Sajawan, the state-level bureaucrat responsible for Arunachal Pradesh's forests and environment, disputed several of the wildlife board's objections, according to the minutes of a December meeting. He argued that the state's rich biodiversity could not be protected "by alienating people," and pointed out that as a cleaner alternative to coal-fired power plants the use of hydropower would mitigate economic development's "adverse impact on birds, animals and the biodiversity in general."

"Can we look beyond animal and plant biodiversity and think of people who are as much a part of the same biodiversity?" Sajawan said. "The people in Arunachal Pradesh are getting increasingly frustrated at the delay in clearance of developmental projects on the ground of environment, forest and wildlife clearances."

Even before hearing Sajawan's arguments, Environment Minister Natarajan had opened the December meeting by saying that "already a sizable investment of scientific, technical and financial inputs had gone into the project."

And though she promised to review the wildlife board's objections, her closing admonition was that "the matter could not be delayed any further."

In other words, as more and more money was spent on upfront payments, engineering and impact studies, environmental clearance began to look like a foregone conclusion.

"Dams threaten pristine corner of India", 25/04/2012, online at: **http://www.minnpost.com/global-post/2012/04/dams-threaten-pristine-corner-india**

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❖ Water scarcity dominates Udupi ZP meeting

There is no water in Janata colonies in many places of the district'

The issue of drinking water scarcity in different parts of the district dominated the general body meeting of the zilla panchayat here on Saturday.

Raising the issue, Ananth Movady, member, said that earlier issues such as water shortage were discussed with elected representatives and then a list of affected places was sent to the government. But this time, the zilla panchayat had taken no action. Panchayat president K. Shankar Poojary had stated that there was no drinking water problem in the district. But the fact was that there was no water in Janata colonies in many places. The task forces under the MLAs could not implement emergency drinking water projects, he said.

When Manjunath Poojary, member, said that there was severe drinking water problem in rural and urban areas of the district, Mr. Poojary said that there had been a thorough discussion on it at the monthly Karnataka Development Programme meeting.

Chairman of the zilla panchayat's Standing Committee on Social Justice Upendra Nayak said that the task force under each MLA had been given Rs. 20 lakh for dealing with drinking water scarcity. The aim of the zilla panchayat was to provide permanent and safe water, he said.

Chief Executive Officer of the zilla panchayat S.A. Prabhakar Sharma said that of the Rs. 36-crore provided for drinking water for 2011-12, Rs. 34 crore had been utilised. But Rs. 80 lakh given to the task forces under MLAs in 2008-09 and 2009-10 had not been used. The government had the ZP to return the money.

But on a request by the zilla panchayat, the government directed that this money should be used for emergency drinking water projects. Gram panchayats had powers to supply water through tankers in the event of an emergency, Mr. Sharma said.

Mr. Manjunath Poojary said that works under the Multi-Village Drinking Water Scheme had been stopped midway in Nitte and was half complete in Hebri. Byndoor MLA Lakshminarayana said that owing to the no-water-no-payment policy of the Ambedkar Development Corporation for the Ganga Kalyana scheme, no agency was coming forward to drill borewells.

Engineer of the Panchayat Raj Engineering Department Sridhar Murthy said that works under the scheme were progressing well in Hebri and would be completed by May 15. There had been a delay in Nitte.

But the department threatened to blacklist the contractor. Works at Nitte were expected to be completed by May-end. There was only one company in the district, which could drill borewells. It was difficult to get other companies here, he said.

Gopal Bhandary, Karkala MLA, said that the departments were not spending money earmarked for drinking water supply. Taluk Development Officer of the Ambedkar Development Corporation said that of the 67 borewells drilled, only two failed.

"Water scarcity dominates Udupi ZP meeting", The Hindu, online at: http://www.thehindu.com/news/cities/Mangalore/article3366972.ece

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

❖ Precious resource: Craft strategy to conserve water, Pakistan advised

LAHORE:

Pakistan is among the countries in the world that is suffering from acute water shortage, as ground-water resources along with per capita consumption of water are depleting fast.

In an exclusive interview with *The Express Tribune*, US State Department's Special Coordinator for Water Resources, Bureau of Oceans and International Environmental and Scientific Affairs Dr Aaron Salzberg said that there were genuine fears that unless a national water policy was jointly formulated in consultation with all the provinces, the country will face economic and social consequences. Salzberg is holding talks with the federal and provincial governments, along with other stakeholders, stressing the need to manage water resources.

"I have been told that there are places in the country where the water table has depleted by as much as 800 feet and lands are barren due to water-logging and salinity. The situation in Pakistan clearly calls for management of available water resources and crafting a strategy that could ensure water conservation and availability for both upstream and downstream states," he said.

"If you get heavy rains at glaciers that speed up the process of the ice melting and do not have reservoirs to hold the water, it causes flooding. If you do not have rains you suffer from drought, so it is basically prioritising the water resources," Salzberg added. The official said that the water dispute between Punjab and Sindh was basically a trust deficit issue which could be resolved through dialogue. He said that such disputes between the upstream and downstream states were not uncommon.

Regarding the water dispute between India and Pakistan, the diplomat stated that the Indus River Water Treaty was the right way to solve the problem. "Whenever there are political, economic and security issues between nations, water invariably arises as an issue. If there is trust and cooperation between them, then this precious resource cannot trigger conflict." He cited an example between neighbours Canada and America to highlight how countries can work together to address their water issues. "There is a dam in Canada that was built by US and is being managed by US because it was America's need and not Canada's," Salzberg added.

"In today's world, safe drinking water, sanitation and food security are challenges. The problem is we do not understand the importance of water unless we do not have it," Salzberg said.

"There is an urgent need for Pakistan to formulate a comprehensive national policy on water. Farmers and agriculturists should understand the need to pay for the water they use. Pumping water relentlessly from underground is not a solution, especially if there is no balance between water that is replenished by natural means and it being extracted," reiterated the water expert.

"Precious resource: Craft strategy to conserve water, Pakistan advised", 25/04/2012, online at: http://tribune.com.pk/story/369537/precious-resource-craft-strategy-to-conserve-water-pakistan-advised/

❖ Fresh Water Scarcity Is Most Explosive Global Crisis, Says Author Steven Solomon

Sharon Kleyne, founder of Bio Logic Aqua Research and host of the Sharon Kleyne Hour Power of Water syndicated radio talk show, considers Steven Solomon's 2010 book about threats to the global fresh water supply as a wake-up call to everyone. Mrs. Kleyne recently interviewed Mr. Solomon for a second time to learn if any progress has been made to resolve the crisis. There has not.

Steven Solomon is an investigative reporter specializing in environmental issues. He is author of the book Water: The Epic Struggle for Wealth, Power and Civilization (Harper, 2010). The interview with Sharon Kleyne took place on April 23, 2012 (the day after Earth Day).

Sharon Kleyne observed that the global water crisis tends to be masked and not of immediate concern in much of the developed world - despite the fact that in China's numerous mega-cities, and in rapidly growing population centers in the American Southwest, fresh water disaster is immanent.

Mr. Solomon observed that the recent "Arab Spring" revolts began in response to spiking food prices caused by fresh water scarcity. According to Solomon, population grown worldwide is outstripping agricultural production and the limiting factor is available fresh water.

Solomon also cited the problems if increasing desertification as part of global climate change, noting that a portion of this is natural and cyclical and not man-caused. According to Mr. Solomon, the Sahara used to be grassy savannah with swamps and hippopotamuses. As the desert expanded, people migrated to the largest remaining fertile strip; the Nile Valley where the Egyptian civilization emerged.

According to Mr. Solomon, Adam Smith, the famous Scottish economist (1723 to 1790), in his book The Wealth of Nations (published in 1776), observed that water is critical to all human activities, including life itself and is therefore highly undervalued. With fresh water becoming increasingly scarce in 2012, the price is expected to rise accordingly.

Sharon Kleyne then reiterated her belief that one legitimate role of government is to provide the infrastructure and financing to assure that nobody becomes ill or dies due to lack of abundant and sanitary fresh water. Steven Solomon agreed.

Solomon and Kleyne had a lengthy discussion of the impact of fresh water scarcity in Iraq, Yemen, Syria, Tibet, China, India, Pakistan, the Netherlands and the United States.

"Fresh Water Scarcity Is Most Explosive Global Crisis, Says Author Steven Solomon", 26/04/2012, online at: http://www.digitaljournal.com/pr/683263

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❖ Africa sitting on sea of groundwater reserves

(Reuters) - Huge reserves of underground water in some of the driest parts of Africa could provide a buffer against the effects of climate change for years to come, scientists said on Friday.

Researchers from the British Geological Survey and University College London have for the first time mapped the aquifers, or groundwater, across the continent and the amount they hold.

"The largest groundwater volumes are found in the large sedimentary aquifers in the North African countries Libya, Algeria, Egypt and Sudan," the scientists said in their paper.

They estimate that reserves of groundwater across the continent are 100 times the amount found on the its surface, or 0.66 million cubic kilometers.

Writing in the journal Environmental Research Letters, they cautioned, though, that not all these reserves can be accessed.

Where they can, small-scale extraction using hand pumps would be better than large-scale drilling projects, which could quickly deplete the reservoirs and have other unforeseen consequences.

Groundwater is no panacea for Africa's water shortages but it could form an important part of a strategy to cope with an expected sharp increase in demand for water as the continent's population increases.

Even now, some estimates put the number of Africans without access to safe drinking water at more than 300 million and only 5 percent of arable land is irrigated.

"It is not as simple as drilling big bore holes and seeing rice fields spring up everywhere," said Dr Stephen Foster, a London-based senior adviser for aid group Global Water Partnership and an expert in groundwater issues.

"In some places it could be economically and technically feasible to use groundwater to reduce crop loss, but I would question whether that is true everywhere. It will need detailed evaluation.

Foster noted that projects have failed due to cost and logistics problems.

"In northern Nigeria there have been groundwater irrigation projects that have failed because of the rising cost of fuel - a major factor in drilling costs - and distribution difficulties."

The researchers say some of the largest deposits are in the driest areas of Africa in and around the Sahara, but they are deep - at 100 to 250 meters below ground level.

"Water levels deeper than 50 meters will not be able to be accessed easily by a hand pump," said the study, led by Dr Alan MacDonald of the British Geological Survey. "At depths greater than 100 meters the cost of borehole drilling increases significantly due to the requirement for more sophisticated drilling equipment."

PUMPING PROBLEMS

The amount of water a borehole yields is another key issue. A small community hand pump needs a borehole with a flow rate of 0.1 to 0.3 liters per second. For large-scale irrigation, the rate needs to be much higher, say around 50 liters.

Phoebe White, a water, sanitation and hygiene specialist for the UK Department for International Development based in Kinshasa, Democratic Republic of Congo, said hand pumps in the DRC cost up to $13,000 apiece but in some areas the aquifers are too deep and other pumps must be used.

In areas of DRC where drilling deep boreholes is required the cost can be around $130,000, although problems of accessibility and infrastructure can push that figure up, according to White.

The researchers say the maps, based on existing geological charts from governments and hundreds of aquifer studies, are aimed at promoting a "more realistic assessments of water security and water stress".

Roger Calow at UK think-tank the Overseas Development Institute, which was involved in the program that spawned the research, said the paper shows water shortages in large parts of Africa do not stem from scarcity.

"What the science is telling us is that we have more storage in these shallow, relatively unproductive (aquifers) than we thought," he said, adding that about 60 percent of Africans still live in rural areas and 80 pct of those rely on groundwater systems.

Calow said a third of hand pumps across Africa have broken down due to a lack of maintenance.

Aid agencies gave the research a cautious welcome.

"The discovery of substantial water reserves under parts of Africa may well be good news for the continent but it may prove hard to access in the near term and, if not sustainably managed, could have unforeseen impacts," Nick Nuttall, spokesman for the United Nations Environment Program (UNEP) in Nairobi.

Nuttall said over-abstraction exploitation of groundwater in Mexico City, for example, is undermining the foundations of buildings.

He said the focus of efforts to improve water supply should be on better collection and storage.

"The fact is that there is already a tremendous amount of water available for Africa but it is rarely collected".

A study by UNEP and the World Agroforestry Centre found there is enough water falling as rain over Africa to supply the needs of some 9 billion people.

"Ethiopia, where just over a fifth of the population are covered by domestic water supply and an estimated 46 per cent of the population suffer hunger, has a potential rainwater harvest equivalent to the population needs of over 520 million people," Nuttall told Reuters.

(Additional reporting by Katy Migiro in Nairobi, Jonnny Hogg in Kinshasa, Mark John in Dakar. Editing by Jeremy Gaunt.)

"Africa sitting on sea of groundwater reserves", 20/04/2012, online at: http://www.reuters.com/article/2012/04/20/us-africa-water-idUSBRE83J0W520120420?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=420ccef738-RSS_EMAIL_CAMPAIGN&utm_medium=email

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❖ Making Water and Sanitation a Reality for All Africans

Dirty water and poor sanitation sicken and kill tens of thousands of people each year in Sub-Saharan Africa, and imposes a heavy economic cost on countries equal to 1.4 percent of GDP in some countries. No one should accept this situation as destiny. We can change it.

Since access to potable water and sanitation was first recognized as a Millennium Development Goal in 2000, budgets for water and sanitation has grown in much of Africa. But bigger budgets and more spending have not appreciably expanded access to services in most countries. This is because the continent's population continues to grow strongly, the extra public financing is not being effectively spent, too little is being done to maintain existing water facilities and infrastructure, and water systems in countries embroiled in conflict have been destroyed or damaged.

Later this week, the World Bank and UNICEF will co-host a high-level Ministerial Dialogue on Sanitation and Water, to take stock of the water and sanitation situation around the world. This will be a vital opportunity for governments, donors, civil society, the private sector, and other key partners to confront the stark truth that safe water and sanitation in Africa remains out of reach of many, especially poor people.

In a recent World Bank study of water and sanitation services in 15 countries of Sub-Saharan Africa, we found that public spending still falls considerably short of government commitments and of international and national policy goals. On average, governments spent $1.71 per person on water supply and sanitation. This corresponds to less than half a percent of gross domestic product (GDP) and is five times lower than what is estimated to be needed each year to meet Sub-Saharan MDG targets.

We also found that actual patterns of spending stand in stark contrast to the economic and social rationales behind such spending. Too small a share of available funds is spent to expand poor people s access to essential services and to address the health and environmental problems created by unsafe water. Too little is spent on maintaining the water supply infrastructure. Too little is spent on sanitation, which is saves lives, especially those of young children. Too great a share of public funding goes to subsidize water for richer citizens who can afford to pay unsubsidized prices. Too great a share is wasted by inefficient utility practices such as over-staffing and underbilling, just to name several problems.

Targeting public spending to the poor will call for well-off citizens to pay for the water they use. Water and sanitation cannot develop sustainably until the wealthy begin paying for their services so that public financing can be directed to where it is needed most, to improve the lives of poor people.

Low utility tariffs are a major issue. However, before making changes to the tariffs, utilities should improve their efficiency by addressing their low billing and collection ratios. Promoting better maintenance of existing assets can cut spending on costly rehabilitation and thus increase the budget available for expanding access. While many African governments have updated their water policies, they have been less effective at putting them into practice, with national and local governments unsure about what their respective duties should be. Tanzania, a notable exception, has embraced a decentralized approach to water and sanitation where national government transfers to Tanzanian local governments reached nearly 40 percent of the water budget in 2008, up from zero in 2005.

Only two thirds of water and sanitation budgets are actually spent. To improve budget execution, government capacities in project management, especially at the local level, will need to be strengthened to make well-intentioned plans succeed. More detailed planning and speedier procurement will decrease the number of abandoned works and reduce delays.

Fortunately, we found some positive examples. For example, Benin has combined reforms of public expenditure management, while developing new investment programs. Donors helped the government to improve its management and implementation capacity so that the allocated budget was actually spent within a budget cycle. Between 2001 and 2008, the number of new water points built annually surged more than fourfold. Meanwhile, better budgeting and greater transparency in public financing persuaded several donors to increase their funding to Benin.

Finally, we found that donor funds were often badly targeted and unpredictable, resulting in execution rates that are lower than those of internal resources. Donors need to work together more closely and organize themselves behind a country s water and development plans. Donor funding is critical, as internal spending is not enough to fund improved water and sanitation. But donor funds are often fragmented.

One water utility in Mozambique, for example, had 19 separate donors in 2008. Donor funding commitments for the coming years are a good start. But greater harmonization and pooling of their aid money are vital to avoid overwhelming a country s ability to plan, budget, implement, and report back to the donors on how their aid is being used effectively. As a first step, development partners should consider forming a donor group for the sector to jumpstart the necessary pooling, harmonization, and joint evaluation.

Our review revealed a lack of efficient public spending and showed how better-off citizens end up capturing the benefits of public spending on water and sanitation at the expense of poorer people. The emotional argument for more on clean water and better sanitation will be greatly strengthened by improving the targeting and the execution of public spending so that clean drinking water and healthy sanitation services become a reality for all Africans.

"Making Water and Sanitation a Reality for All Africans", 23/04/2012, online at: http://opinion.myjoyonline.com/pages/feature/201204/85340.php

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

❖ Africa: Call for More Investment in Water

SUB-Saharan African countries including Tanzania need to revisit their water policies and invest heavily in the sector.

Zanzibar President Dr Ali Mohamed Shein said in Dar es Salaam on Monday that increased agricultural and industrial activities, as well as effects of climate change were challenges to many African countries.

In a speech at the opening of the International Conference on Water Science, Policy and Management, he called for Africa to review their policies to realise the Millennium Development Goals (MDGs) on the sector. "Unfortunately, the freshwater situation is not encouraging with estimates showing more than 300 million people on the continent facing serious shortage of water.

"The amount of freshwater available for each person in Africa is about one-quarter of what it was in 1950s," he said. In the speech read on his behalf by the Zanzibar Second Vice-President Ambassador Seif Ali Idd, Dr Shein said collective efforts were crucial in meeting water challenges globally.

He expressed concern over inadequacy of governance structures in most of Africa's river basins due to conflicts among competing users, serious environmental degradation and weak enforcement of the existing laws. To cope with the changing environment meaningfully, he said, Africa needed to institute necessary interventions including establishment of required institutions and early warning systems.

"Robust in effective water demand management measures using different technical, administrative and legal instruments have to be instituted and monitored for their effectiveness," he said. Tanzania, he noted, was equally struggling to meet MDGs on water with the current coverage standing at 58.7 per cent for rural and 86 per cent for urban areas against the MDGs target of 65 per cent and 90 per cent for rural and urban areas respectively.

Earlier, the Minister for Education and Vocational Training, Dr Shukuru Kawambwa, whose ministry houses the UNESCO International Hydrological Programme (IHP) which is the conference organiser, said the meeting was being attended by about 60 participants from 22 Sub-Saharan African countries.

He listed the countries as Zambia, DRC, Nigeria, Mali, Niger, Benin, Ivory Coast, Botswana, Senegal, Lesotho, Guinea, Togo, Tunisia, Ghana and Kenya. Others are Uganda, Swaziland, Burundi, Malawi and host Tanzania and the meeting theme is "Water Science for Sound Africa Water Policies and Governance in a Changing Environment."

"Africa: Call for More Investment in Water", 24/04/2012, http://allafrica.com/stories/201204240175.html

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❖ Africa: Water and Reconstruction - an Agenda for Transformation

The unification of the water resources of Africa is one of the primary bases for African unity, with a system of canals linking rivers and lakes in the kind of infrastructure planning that ensures that all will have water.

What is hidden from the Wise and Prudent will be revealed to babes and sucklings.

In that hour Jesus rejoiced in spirit, and said, I thank thee, O Father, Lord of heaven and earth, that thou hast hid these things from the wise and prudent, and hast revealed them unto babes: even so, Father; for so it seemed good in thy sight. Luke 10:21 -

Islam ascribes the most sacred qualities to water as a life-giving, sustaining, and purifying resource. It is the origin of all life on earth, the substance from which God created man (Qur'an 25:54). The Qur'an emphasizes its centrality: "We made from water every living thing"(Qur'an 21:30). Water is the primary element that existed even before the heavens and the earth did: "And it is He who created the heavens and the earth in six days, and his Throne was upon water". (Qur'an 11:7).

REVELATION: HUGE WATER RESOURCE FOUND IN AFRICA

I have quoted from the Bible and the Koran because once one begins to deal with water one is dealing with the fundamentals of life. In all major religions and forms of spiritual reflection, water plays a central role. Whether it is the religion of the African ancestors or the newer religions such as Christianity or Islam, water is presented in real or symbolic forms. Water as a symbol of life as well as a means of cleansing or purification is of particular importance in the traditions of Africans.

In nearly every African society, the water spirit is one of the most positive and forceful spirits in the community. It is because of the importance of this spiritual energy that the external exploiters always wanted to control this resource, bot at the spiritual level and at the material level. The lakes and water resources served as a spiritual and ritual space for the peoples in so far as the importance of water was understood in spiritual terms of giving life.

Those who believed in the 'mami wata' spirit were accused of witchcraft and oftimes cast out of communities. Those who remember the imperial partitioning of Africa will recall that for the dominant imperial force at that historical moment, the race was to reach the source of the Nile. The conquest of the peoples in the Nile valley was always central to imperial objectives in Africa. After using the water to support colonial mining, agriculture and industrial uses to the detriment of the vast majority of the peoples, colonial overlords left schools of engineering and hydrology that repeated discourses about "Global water crisis." It was in Southern Africa where this was most obscene.

Settler colonialists consumed vast amounts of water for irrigation, sprinkling elegant gardens and for their swimming pools while there was water shortage for the majority. Irrigation schemes had been established by the settlers to provide water for the farms and the political and economic power of settler colonialism had been stamped in the building of the Cabora Bassa and Kariba dams.

During the period of apartheid, the minority government in cooperation with the World Bank invested in the Lesotho High Water Dam to dispossess the people of Lesotho for industries and big corporate entities in South Africa. As in South Africa, so all over Africa these schemes benefited the rich while there were books and papers on the "Global Water Crisis in Africa." International relations experts then produced reams of papers on future water wars.

Today we are now being told the truth about the abundance of water resources in Africa. In reality, the publication last week by the British on the large underground supplies of water is only news to those in the West who had built an industry out of consultancies on water shortages in Africa. The peoples of Africa always knew of the tremendous wealth but we will use the publication of the British Geological Survey and University College London (UCL) to reflect on the tasks of building the kind of infrastructure of canals and water systems for the unification and for the health and well-being of the peoples of Africa.

As reported on the BBC web page, http://www.bbc.co.uk/news/science-environment-17775211, 'Huge water resource exists under Africa ... Scientists say the notoriously dry continent of Africa is sitting on a vast reservoir of groundwater. They argue that the total volume of water in aquifers underground is 100 times the amount found on the surface. The team have produced the most detailed map yet of the scale and potential of this hidden resource.'

This report had been drawn from Quantitative maps of groundwater resources in Africa to explain to the world that there is no shortage of water in Africa. The maps and the information also detailed the fact that, 'Where there's greatest ground water storage is in northern Africa, in the large sedimentary basins, in Libya, Algeria and Chad. The amount of storage in those basins is equivalent to 75m thickness of water across that area - it's a huge amount. Due to changes in climate that have turned the Sahara into a desert over centuries many of the aquifers underneath were last filled with water over 5,000 years ago.'

The scientists collated their information from existing hydro-geological maps from national governments as well as 283 aquifer studies. The researchers say their new maps indicate that many countries currently designated as "water scarce" have substantial groundwater reserves." http://iopscience.iop.org/1748-9326/7/2/024009/pdf/1748-9326_7_2_024009.pdf

The same quantitative map of water resources had revealed that there is an abundance of water in areas such as the region of Chad and Western Sudan as well as in the Southern Africa region. So whether above ground with the massive resources of the numerous lakes and rivers or in the Aquifers below, the challenge for reconstruction is to plan for the needs of the people.

This information is not news for Africans.

These British researchers drew their information from national governments. It is the kind of work that should be undertaken by the Economic Commission for Africa and the commissions of the African Union. New research and political leadership must be unleashed to break the subservience to European research priorities and to link water to peace and the security of African peoples. The fact that Libya has the highest storage of ground water in Africa has been known by the people of Libya and the people of North Africa.

It is for this reason that the government of Libya had embarked on the great water transfer scheme to harness the resources of the Nubian Sandstone Aquifer. The Libyan state had invested $25 billion in the Great Man-made River Project, a complex 4,000-km long water pipeline buried beneath the desert that could transport two million cubic metres of water a day. The objective of this, (up to 2011) the largest engineering project in Africa was to turn Libya - a nation that is 95 per cent desert - into a food self-sufficient arable oasis. The Quantitative Maps of Groundwater Resources in Africa declared to the world that,

'Groundwater resources are unevenly distributed: the largest groundwater volumes are found in the large sedimentary aquifers in the North African countries Libya, Algeria, Egypt and Sudan.' Of these African countries, Libya possessed by far the largest volume of ground water, 99,500 (km3). Algeria with 91,900 (km3), Sudan with 63,000 (km3) and Egypt with 55 200 (km3).

Here, then, is the truth revealed to those who did not know that French and western water companies had for decades coveted this huge resource of water in North Africa calculating how to deny the Africans access to these resources. This report can help those who were confused about the real motives for the invasion of Libya. Not only has the work on this project been halted, but close to US $150 billion of the people of Libya is being held hostage by western financial institutions and governments.

Prior to this report on the abundance of groundwater resources, African policy makers and planners who were patriotic knew that in Africa there are abundant freshwater resources in large rivers and lakes such as the Congo, Nile and Zambezi River basins and in Lake Victoria, the second largest freshwater lake in the world. However, there are great disparities in water availability and use within and between African countries, because the water resources are so unevenly distributed. This mal-distribution was exacerbated by years of colonial manipulation of water ways and apartheid engineering in the conceptualization of dams and water supply systems. The Congo region is of special importance because of the volume of water in this area.

WATER SCARCITY AND WATER SHORTAGES IN AFRICA

For decades it is has been the work of capitalist inspired international organizations to reveal a different narrative, that of water scarcity and water shortages in Africa. Whether it has been the World Bank project to sell the idea of 'water shortage' to promote the marketing of water in Africa or the United Nations Environmental Programs (UNEP) that produced the Africa Water Atlas, the fiction of water shortage in Africa has been a multi-million dollar business. What was never revealed was the reality that access to water was the major democratic question in Africa and the more democratic a society, the more accessible the resources for water and sanitation.

This fabrication of water shortage had been successfully sold to the point where the idea of providing clean water for all in Africa is reproduced as part of 'aid' packages. The international 'donors' have been aware of the water wealth of Africa but reproducing the story about food shortages as the story of water risks provided a good foundation for the multibillion dollar aid industry which was in place to speed capital flight. Food and 'water 'security' became interwoven with the failed NGO recolonization of Africa. This narrative was so successful that non-western societies from Japan, Korea and other 'rising' tigers went into Africa with the idea that there was a water deficit in Africa.

Of the 8 Millennium Development Goals outlined by the United Nations in 2000, goal number 7 is to "Ensure environmental sustainability." Under this goal of ensuring environmental sustainability is the goal 7C and the target: Half, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation (for more information see the entry on water supply). Under the present international political economy the prospects for the achievement of the MDG goals were never realistic.

While one section of the United Nations was promoting these MDG goals, sober researchers from the UNDP published research to show that in Africa under the present international economic order these goals would not be reached until well after 2165. Hence when we read from the MDG bureaucracy that 'Proportion of population with sustainable access to an improved water source, urban and rural, and Proportion of urban population with access to improved sanitation," we will know that these words are meant to lull Africans to beg instead of organizing to reclaim their resources for independent planning and transformation.

Under the mantra of western beneficence, the goals of the MDG as well as the present IMF projects could only be reached by more liberalization and by opening up African resources to international capital. In the specific instance of access to water, the World Bank continues to promote major schemes for Water Resources management. The World Bank sums up its approach to Water Resources Management on the basis that its goals were: (a) helping the poor directly. (b) improving macroeconomic and fiscal balances, (c) promoting good governance and private sector development, and (d) protecting the environment.

The key basis for achieving these goals was the privatization of water resources. For the past fifty years the World Bank has been supporting giant water projects that served to dispossess the working peoples of the urban and rural areas. The World Bank projects for water management have been especially detrimental for the livelihood of oppressed African women. These women expend hours every day securing clean and potable water. The World Bank and its myriad of sub-contractors have been at the forefront of the struggles over the ideas of whether water should remain a public good, shared by humans everywhere, or a commodity to be bought and sold on the open market.

In all other continents, this struggle over water has intensified and in Latin America, the struggles of the Bolivian people are now legendary. Vandana Shiva has written extensively on these struggles and one book in particular is recommended, Water wars: privatization, pollution and profit. It is within the context of the future of the world where there is deep dispute over water as a source of life and common good, as opposed to water being understood as an economic 'good' - a commodity to be bought and sold to the highest bidder.

CANNIBALISTIC CAPITALISM

The idea of water and plant life as saleable commodities is guided by the ethics and values of the European Enlightenment. The period of the Enlightenment ushered in an era of human hierarchies and some of the leading luminaries of this 'enlightenment' supported the trans-Atlantic slave trade and ideas of white supremacy. These are the ideas that emanated from the view that humans were like atoms and that the material world and the spiritual world were separate. It is one variant of dualism that separates the mind from the body, secular from the sacred and spirit from matter.

The Newtonian/Cartesian view of the universe developed in the period of a mechanical understanding of the planet, before physicists interrogated the Brownian motion relating to water molecules. Albert Einstein had studied the physical properties of water and the other unknown qualities as it relates to energy and life giving qualities. In the enrichment of thermodynamics and quantum physics, Albert Einstein was able to develop a new understanding of the world by exploring how a scientist could calculate the molecules in the atom. This scientific research of Einstein breached the old conventions of mechanics and opened a wider understanding of the laws of nature and the universe. Einstein made a break with the hierarchies and divisions and it was not by accident that Albert Einstein support socialist planning and peace among humans everywhere.

The new information on the huge water resources can be seen by African progressives as part of the marshaling of the tools and resources of the vast African awakening that is now underway. One component of this awakening is to embrace audacity and be bold and break from linear concepts of development. African reconstruction is now turning from the cannibalistic and vulture ethics of western predation to the spirits of sharing and cooperation. Elevation of this sharing at the level of national and international planning now awaits the completion of the African awakening when the repressive and coercive forces are swept aside.

This will then ensure the mobilization of the scientific and technological resources to unleash the basis for a quantum change in the path of reconstruction.

AFRICAN UNITY AND THE BREAK FROM THE CARTESIAN DUALISM: BEYOND CONCEPTIONS OF BOUNDARIES IN AFRICA

In the new period when Africa is making a break with enlightenment ideas of hierarchies and 'development', it is becoming clearer that reconstruction and transformation must start with the key resources of Africa. The fundamental resource in this instance is the human resources of Africa armed with a spirit of optimism for the future with the knowledge of the abundance of natural resources.

The truth has now been revealed to babes and sucklings that there is an abundance of a fundamental resource: the water resources. Adigun Ade Abiodun has for decades been writing and pushing for African scientists to develop a concept of unity that promotes the use of the most advanced scientific techniques to open up new opportunities. These opportunities are being fashioned in order to breathe new life into agricultural productivity, give adequate and timely information about Africa's physical environment and its natural resources and lay the foundations to repair Africa from the ravages of global warming.

Ade Abiodun who served as United Nations expert on space applications for more than twenty years has been campaigning all over Africa for the African peoples to invest in space technology and research to be able to protect their resources on the ground and underground. As a scientist, Abioudun understood that the linear conceptions of 'development' promoted by western states were designed to stifle the full potential of Africa. Hailing from Nigeria where individualism and selfishness lead to individual electricity generators and individual water storage facilities, for a short period Abiodun worked for the Nigerian state to invest in the infrastructure for scientific transformation.

One day his full story will be told of how the vultures who dominated Nigeria thwarted all efforts to develop local skills and resources to move the Nigerian society and economy. The destruction of the wetlands systems of the Niger Delta as well as the plunder of the oil resources are all aspects of the forms of capitalist relations of production and destruction which is evident all over Africa. When African activists from the Niger Delta call for leaving the oil in the ground, such a call stems from the full understanding that the present forms of cannibalistic capitalism must be stopped if there is to be the transformation of the quality of the lives of the peoples.

Like Samir Amin, Abioudun called on Africans to be bold and audacious to build real mechanisms for unity. The unification of the water resources of Africa is one of the primary bases for African unity with a system of canals linking rivers and lakes in the kind of infrastructure planning that ensures that all will have water. It is socialist planning at the Pan African level which can make water for all a reality.

One of the core goals of the African Union is to build the African Economic Community (AEC) by 2025. This vision is also buttressed by the Africa Water Vision of 2025. A key element of this water vision and the AEC is the building of Regional Economic Communities. From the period of Kwame Nkrumah and Cheikh Anta Diop there was the understanding that the Regional Economic Committee will be a building block or a stumbling block for the full unification of Africa, depending the level of democratization.

The Nile Basin water shed area is but one example of a region where there is urgent need for economic and political unity so that the peoples of Egypt, Sudan, South Sudan, Ethiopia, Kenya, Uganda, Tanzania, Rwanda, Burundi and the DRC can formalize plans for a 21st century use of the water resources in this region. Outdated colonial treaties such as the Nile Water treaty lay the foundation for wars and battles if the peoples of Africa do not unite to create a new economy beyond the inherited neo-colonial pipelines for looting.

As in the Nile Basin, so in the Congo River basin, the Mano River basin, the Niger River societies and the societies of the Zambezi and Orange rivers there is need for planning so that there is a new concept of integration and unity. These rivers, lakes and underground water resources are equally owned by all of the peoples and there are no justifiable reasons to maintain the artificial borders that were established in 1884.

GREAT GREEN WALL PROJECT

In the 21st century, the reconstruction and transformation of Africa will mobilize the energy, skills and talents of all Africans so that the peoples can believe in the ideas of African Unity. As Amilcar Cabral noted, we are not fighting for slogans but for real change in the quality of the lives of the people. To be able to move the continent of Africa in a direction of real unity requires the kind of boldness that was manifest in the commitment to struggle against colonialism and apartheid. Cheik Anta Diop in his vision of a federated Africa linked this dream to the reforestation and repopulation of Africa. Diop drew attention to plans that had been drawn up as far back as the fifties for the reforestation of the Sahel. He wrote,

'The Sahel Zone, the more desert the farther north one goes, is ideal for reforestation. As early as 1950, we suggested a plan for replanting here. Although approved at the time by the Sudanese people and taken under consideration by the administration, this plan has since lain dormant.'

This plan of reforestation has always been linked to the larger project of providing water to those areas where there were water deficits. Wangari Maathai had taken this vision seriously and there are millions of African environmentalists who take seriously the vision of the reforestation of Africa. This vision of reforestation and healing the African environment can mobilize millions of workers, youths and engineers for a new sense of priorities for Africa. It is here where Pan African youths must take full ownership of the Great Green Wall Project.

The African Union has supported this plan that had been pushed by visionaries such as Thomas Sankara. Reforestation in Africa is now conceived of as a massive project which calls for planting a 15km wide and 7000km long swath of land from Djibouti in the east and stretching to Senegal in the West (passing through Ethiopia, Eritrea, Sudan, Chad, Niger, Nigeria, Burkina Faso, Mali, and Mauritania. This "Great Green Wall" is envisaged by the African Union as the Seven Thousand Kilometers of Trees integrated into new agricultural zones. Such a project places the concept of Unity on the level where it touches concretely the lives of the people. Advances in solar energy technology, harnessing the underground water resources, the electrification of Africa and an infrastructure of canal systems await Africa 2025 when Africa breaks from western intellectual and political hegemony.

Experience from China more than 2500 years ago pointed to the reality that the unity of China was reinforced by the Grand Canal system that linked different regions to build an integrated society. Whether one is a nationalist or socialist in China it is known that the harnessing of water is central for the transformation of the lives of the people. Hence, it was the Chinese nationalist Sun Yat Sen who envisaged the great water transfer schemes that will transfer water from the Southern regions of China to the water deficit areas of the North around Beijing. It is central planning (not liberalized markets for water) which has provided the conditions for the accumulation of the resources to continue this dream of Sun Yat Sen. China will spend billions of dollars on these water transfer schemes in the next decade.

Close to 200 years ago, the United States built the Erie Canal to open up the region to the west to be able to ship goods from the interior. While we have the examples of the Grand Canal in China and the Erie Canal, the youths should draw from African history to learn of the great hydrological works of ancient Egypt.

PLANNED RECONSTRUCTION FOR THE TRANSFORMATION OF AFRICA

Whether it is China, Vietnam or other societies in Asia that are conceptualizing autonomous and planned transformation of their societies, the management of water and water resources continue to be at the top of the list of six or eight areas of reconstruction. Health, Electrification and energy, Democratization of water resources, Infrastructure (roads, bridges, rail, canals, and airports), Education, Agriculture and aquaculture, Housing, and construction along with Information and computer technology (ICT) have been identified as areas of concentration to break from the old forms of 'development' and industrialization that destroyed the planet earth. It is now possible to plan

for the mobilization of the spiritual energies of the people with these abundant resources to create a new world.

This world will be built out of struggle the building of new political consciousness. Not only are there the negative lessons from the old forms of capitalist industrialization, but we have the new lessons of the obscene waste of where by Sheiks in the Emirates who are building mega projects based on the salinization of water. These rich and opulent leaders are imbued with the ideas of western capitalism and although they claim to follow Islam, they are indeed children of western capitalistic domination. It is not by accident that these rulers host the private military contractors from the capitalist states and were the ground troops to stop the great man made river in Libya.

The politics of transformation of Africa requires a new politics and democratic relations among the peoples. Now that the truth has been revealed to the wise and prudent, the remobilized peoples of Africa can focus their energies for the repatriation of the billions of dollars that has been siphoned out of Africa. The United Nations Stolen Assets Initiative is not one of the organs of the UN that is promoted by the current leaders in Africa. If it is estimated that currently $10 billion is siphoned out of Africa, then the vision for reconstruction must be linked to a concrete plan to halt the outflow of capital.

Last week we reflected on the planning for the BRICS Development Bank. Our challenge, then, was for this Bank to work to end the domination of the Bretton Woods Intuitions while at the same time breaking with the theft from Africa. We also drew attention to the fact that the old linear conception of the development of the 'productive forces.' The levels of pollution of water are so intense that 'nearly 500 million people lack access to safe drinking water.' It is not an overstatement to say that China is choking on its success and its people need fresh water and clean air. These cannot be bought with money, but must be built based on a new vision of the goals of society.

The African continent has abundant supplies of water and energy. In his projection of the Economic and Cultural Basis for a Federated State in Africa, Cheik Anta Diop expounded on the varying energy resources in Africa. Among the energy resources covered were hydraulic energy, solar energy, atomic energy, thermonuclear energy, wind energy, thermal energy of the sea _ tidal energy and volcanic thermal energy. Diop concluded that: 'These are the energy resources of Black Africa. The utilization by Africans themselves -not to create industries to supplement those of Europe, but to process the raw materials that the continent contains - could turn Black Africa into a paradise on earth.'

Colonialism turned Africa into a nightmare for Africans and a paradise for settlers. The removal of colonialism and settler domination required a new form of politics. We now know that many of the leaders of the anti-colonial movement internalised the ideas of European superiority. Politically the youths of Egypt are creating new forms of struggles with new ideas about organizing. Philosophically, these youths are seeking to harness the spiritual energies to move beyond greed and individualism and to move beyond differences between Christians and Muslims. Philosophically, Ubuntu is being seen as the tool for the new politics.

The philosophy of Ubuntu seeks to break the divisions between the rational and irrational human, between space and time, objectivity and subjectivity and those ideas of 'science' that devalues the

spiritual dimension of life. Within the present leadership of the African Union are to be found many leaders and intellectuals who are in full agreement with the World Bank and the view that water should be a commodity to be bought and sold to the highest bidder. The present constitution of international politics challenges organic scholars of the oppressed to conceptualise a prolonged popular struggle and not to be lured by the social capital of those who oppress the vast majority. The revelations of the water wealth are only one other component of the information to oppose western imperial domination.

Those who are struggling against the commodification of water are struggling against the commodification of life in the Biotech Century.

"Africa: Water and Reconstruction - an Agenda for Transformation", 26/04/2012, online at: http://allafrica.com/stories/201204270624.html

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❖ Sudan Versus South Sudan: Mixing Volatile Oil, Water and Religion

In the last two weeks, the lingering war between Sudan (northern Sudan, capital in Khartoum) and South Sudan (capital in Juba) has escalated dramatically.

Fearing a wider regional war involving other east and central African nations (Egyptian military involvement is the nightmare scenario), international diplomats are pursuing a ceasefire agreement between Khartoum and Juba.

The diplomats confront a multifaceted task. This war involves control of oil fields and pipelines; both Sudans rely on oil revenues. Nile River water rights are another contentious issue. (Since the pharaohs, Egypt regards Nile River water as a vital national interest.) Sudan is predominantly Arabized and Muslim; Khartoum calls itself a staunch Islamist regime, with Arab Muslim nations its cultural kin. South Sudanese are predominantly black African and practice either Christianity or animism. Kenya and Uganda are its brethren. A sustainable peace between the Sudans must successfully mix volatile oil, volatile water and volatile religion.

The 2005 Comprehensive Peace Agreement (CPA) tried to do that. The CPA ended the north-south civil war (1983-2005) but has not been fully implemented. The Sudan-South Sudan border remains unsettled, with the oil-rich Abyei region (which the north invaded in 2011) now patrolled by Ethiopian Army peacekeepers. The CPA did produce South Sudan's independence (July 2011), which Khartoum tellingly calls secession. Independence gave the south roughly 75 percent of pre-division Sudan's oil, but the pipeline delivering the crude to international markets runs through the north. The north has imposed such exorbitant pipeline fees that the south curtailed oil production.

Ethnic and political divisions afflict both Sudans. Tribal quarrels spark dozens of vicious small-scale conflicts. Battles over cattle theft, grazing rights and refugee resettlement complicate resolution of the larger issues.

In the short term, ceasefire-seeking diplomats confront "the logic of war" on the ground, where the violent politics of military attack and counterattack overrule negotiations. South Sudan said that the destructive air raids on southern towns conducted by northern aircraft amounted to a declaration of general war. "General war" didn't rhetorically satisfy Sudanese president Omar al-Bashir. Bashir called Khartoum's war against South Sudan a war of liberation. The International Criminal Court (ICC) has indicted Bashir for committing genocide in Sudan's Darfur region. During the civil war, Bashir and Khartoum also countenanced slaving expeditions by Muslim militias operating in the south. A genocidaire and slaver casting himself as a liberator is sordid irony indeed.

South Sudan, however, ignited this round of escalation by occupying Sudan's Heglig oil field on April 10. South Sudan claims a 1956 map placed Heglig in its territory. The southern attack looked like political retribution for the north's Abyei assault, which sent 100,000 refugees fleeing south. The south held Heglig until April 20, which, given the north's edge in military power, impressed many military analysts. South Sudan has no jet aircraft. Its army remains basically a guerrilla force short of

tanks and artillery. Sudan possesses jet aircraft, operational tanks, 800 artillery pieces and 600 rocket launchers.

Khartoum may gamble that war now, to seize southern oil fields, is its best option. South Sudan is slipping the north's stranglehold on oil exports. Kenya and militarily powerful Ethiopia (both U.S. allies) have agreed to help the south build a pipeline to Kenya's seaport of Lamu. This means, however, that Kenya and Ethiopia have an interest in South Sudan's survival and control of its oil fields, so war now by Khartoum risks a wider war. Uganda has already suggested it might intervene if the north takes southern territory. Uganda bears a grudge against Bashir and Khartoum. It contends that the murderous Ugandan rebel Lords Resistance Army (LRA) was created by Sudanese intelligence.

"Sudan Versus South Sudan: Mixing Volatile Oil, Water and Religion", 24/04/2012, online at: http://www.strategypage.com/on_point/20120424223334.aspx

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❖ Oxfam: South Sudan refugees face water shortages

NAIROBI, Kenya (AP) - Tens of thousands of refugees in South Sudan's Jamam camp must be urgently moved to a new site to escape life-threatening water shortages and fatal diseases, an aid agency said Friday.

The boreholes that provide the water for the camp in South Sudan's Upper Nile state can only serve 16,500 of the 37,000 refugees there, said Oxfam's spokesman Alun McDonald. Relief agencies also expect more refugees fleeing the recent South Sudan and Sudan border conflict will be taking up residence in Jamam, he said.

South Sudan became the world's newest country in July 2011 following independence from Sudan. But the two countries are in dispute over the sharing of oil revenues and demarcation of an ill-defined border. Earlier this week Sudan repeatedly bombed South Sudan. The U.N. said the aerial bombardments killed 16 civilians.

"We are fast running out of time and options in the midst of a huge humanitarian crisis," said Pauline Ballaman, head of Oxfam's operations in Jamam. "We have drilled for water and carried out a geological survey, but there is simply not enough ground water available to sustain the growing number of people who need it."

She said women have to queue for hours in the burning sun just to collect a fraction of the water they need, and the situation is getting more desperate by the day and the only solution is to move them. Oxfam is concerned that tensions over competition for water are growing between the refugee community and permanent residents.

Heavy rains in the coming weeks will make it difficult to deliver aid to the camp, leaving refugees exposed to diseases such as cholera, said McDonald. He urged all aid agencies and local authorities to prepare a new site for about 23,000 people.

Many of the refugees in Jamam camp were fleeing an ongoing conflict in the Blue Nile state in Sudan. More than 100,000 people have been forced to flee Sudan because of the fighting in Blue Nile state and another conflict in South Kordofan, Oxfam said. Hundreds of thousands more have been displaced within Sudan.

Sudan says it is fighting rebels in Blue Nile and South Kordofan who are being funded by South Sudan. Sudan President Omar Al-Bashir last week threatened to topple the South Sudan government after accusing the south of trying to take down his Khartoum-based government.

Both South Kordofan and Blue Nile are considered northern territory although many of their inhabitants fought for the south during the region's more than two decade north-south civil war in which more than 2 million people died. They are also ethnically linked to the people in the south.

The black African tribes of South Sudan and the mainly Arab north battled two civil wars over more than five decades, with the latest war from 1983-2005.

A peace deal ended that war and South Sudan became its own country in July after a successful independence referendum. But there have been lingering disputes over border demarcation and oil-sharing revenues between the two countries.

The most recent violence began after South Sudanese troops attacked and captured the disputed oil-rich town of Heglig earlier this month. Sudan then bombed parts of South Sudan and sent ground troops into the country Sunday, days after South Sudan said it was withdrawing its troops from Heglig. Sudan says it has since recaptured it.

"Oxfam: South Sudan refugees face water shortages", 27/04/2012, online at: http://www.kcautv.com/story/17825889/oxfam-south-sudan-refugees-face-water-shortages

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❖ Rwanda: Comprehensive Water Conservation Policy on Course

A comprehensive and suitable policy to protect the country's water resources is underway.

The revelation was made Wednesday by the Deputy Director General of Integrated Water Resources Management (IWRM), Paul Kabalisa, during a consultative meeting in Kigali that brought together partners and organisations involved in water resources management.

"It (policy) provides a framework for equitable allocation of water resources and the sharing of benefits derived from that resource," he said.

The meeting observed that lack of substantial data and information regarding the status of the country's water resources was a hinderence in the ongoing water conservation and management campaign. However, the stakeholders resolved to play a leading role towards achieving this goal.

Another major challenge was insufficient awareness about the country's water resources management policy that was launched last month. Other limiting factors cited were increasing water pollution and contamination due to invasive weeds, intensive soil erosion, sedimentation and poor sanitation facilities.

The Chairperson of Rwanda Water Partnership, Patrick Safari, called upon the general public and local leaders to equally embrace the conservation campaign.

"There is urgent need to address these issues by promoting positive attitudes towards water resources conservation and management," he said.

"Rwanda: Comprehensive Water Conservation Policy on Course", 27/04/2012, online at: http://allafrica.com/stories/201204270096.html

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

❖ Shein deplores policies on resource allocation in Africa

The African continent has not benefited adequately from its vast natural resources, including water, due to lack of sound policy and governance frameworks to ensure sustainable and equitable allocation as well as use and management of the available resources.

This was said yesterday by Zanzibar Second Vice-President Seif Ali Iddi on behalf of Zanzibar President Dr. Ali Mohamed Shein at the opening of the fourth International Hydrological Programme (IHP)-UNESCO Africa Water, Science, Policy and Management conference.

"We must accept that not all countries in Africa have water policies and where they exist few of them address management issues adequately.

I wish to stress that for sound management frameworks to function there is need for reliable and timely data and information. This is a prerequisite for informed decision making at the appropriate level," he noted.

He said data collection networks however are expensive to establish, operate and maintain, adding that even where such networks had been established, quite a number of them are not operational due to inadequate financial resources allocated for the purpose.

Shein added that as water storage and structures and pipelines require heavy investments, there is now a need for consideration of water as an infrastructure issue and hence requiring investment financing by the private sector.

However, he said in Tanzania, for instance, the shortfall in meeting the MDG's full access of water by rural communities needs great support. Currently, the coverage stands at 58.7 per cent for rural and 86 percent for urban areas, while the MDG's targets are 65 per cent and 90 per cent for rural and urban areas, respectively.

"There is need for allocating adequate financial resources to the water sector accompanied by good governance for Africa to make significant and sustainable socio-economic development. The moment of decision is now," he insisted.

Moreover, he said, unfortunately the freshwater situation in Africa was not encouraging. By 2025, about 18 African countries, including Tanzania, were experiencing water stress. Presently, it is estimated that more than 300 million people in Africa live in a water-scarcity environment.

The amount of freshwater available for each person in Africa is about one-quarter of what it was in 1950. In many countries, requirements for domestic freshwater use, sanitation, industry and agriculture can't be met.

For his part, Minister for Education and Vocational Training Dr. Shukuru Kawambwa commended UNESCO and IHP for organizing the conference at a time when the whole world was yet to recover from the global financial crisis and rising food prices.

"These and other challenges call for concerted efforts by African countries individually and collectively to address them so as to improve the social welfare of our people," he said.

"Shein deplores policies on resource allocation in Africa", 24/04/2012, online at: http://www.ippmedia.com/frontend/index.php?l=40862

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

❖ Experts research into more water sources in Africa

In order to combat water crisis in Africa, a team of water experts with the International Hydrological Programme (IHP) has agreed to increase the number of experts and research into more water sources.

Speaking at the closing of the fourth IHP United Nations Educational, Scientific and Cultural Organisation (UNESCO) water science, policy and management conference in Dar es Salaam yesterday, UNESCO National Commission Executive Secretary Prof Elizabeth Kiondo said the conference focused on climate change effects, which resulted in a large and indefinite number of immediate and long-term impacts on water resources including floods, drought, sea-level rise, drying up of rivers, poor water quality and quantity in surface and ground water systems.

"Apart from lack of experts and inadequate researches, we need to have gender equality in the sector of water since it has been occupied by men, while women are the number one victims of the water crisis," she said.

Deputy Minister for Water Gerson Lwenge said to find solutions, provisions for action at local, national and international levels were needed to ensure water had an economic value in all its competing uses and should be recognised as an economic good. He said it was vital to recognise first the basic right of all people to have access to safe and clean water and sanitation at an affordable price.

"Failure to recognise the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving efficient and equitable use and of encouraging conservation and protection of water resources," he said.

He said fresh water was a basic natural resource, which sustained life and was also a finite and vulnerable resource as well as essential to development and environmental sustainability. "Effective management of water resources demands a holistic approach, linking social and economic development with protection of natural ecosystems," he said.

He said we should not forget that water development and management should be based on a participatory approach involving users, planners and policy-makers at all levels and women played a central role in the provision, management and protection of water.

The IHP national committee chairman proposed to host the fourth meeting in Tanzania whereby the previous three were hosted in Nigeria, South Africa and Benin.

"Experts research into more water sources in Africa", 28/04/2012, online at:
http://www.ippmedia.com/frontend/index.php?l=40985

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❖ Six African countries to ratify new 'Nile Treaty'

Six African countries including Rwanda have agreed on the ratification of a new treaty on the use of the waters of the Nile river, an official source revealed here on Friday.

According to Kenyan minister of Water and Irrigation Charity Ngilu, the commission whose mission is to supervise the equitable sharing of the waters of the Nile has been operational since 1999 following an accord signed in Nairobi, Kenya, by the 10 riparian states of the Nile Basin.

However, she said six countries in the region including Rwanda, Uganda, Kenya, Tanzania, Burundi and Ethiopia agreed on a shared vision to achieve sustainable socio-economic development.

"These six countries are now willing to share the resources of the Nile as proportionate to its needs but without ignoring the interests of the other member countries," Mrs Ngilu told Xinhua in an exclusive interview.

The Nile Basin Initiative groups 10 countries: Burundi, the Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda.

The basin of Africa's longest river serves an estimated 300 million people. An accord on the waters of the Nile signed in 1929 gave Egypt exclusive use and surveillance of the river whose source is said to be in the high mountains of southern Rwanda.

The Kenyan official made the comments a few days after an Indian-based Think-Tank "Strategic Foresight Group (SGF)" working on issues of global importance and relevance released a report saying all countries of the Nile Basin need to prepare national water strategies.

"Six African countries to ratify new 'Nile Treaty'", 28/04/2012, online at:
http://www.africareview.com/News/Six+African+countries+to+ratify+new+Nile+Treaty/-/979180/1395572/-/fnrlyrz/-/

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❖ Ethiopia's giant dam muddies the waters downstream in Egypt

ASWAN, EGYPT // About 1,287 kilometres south of this Egyptian city where the Nile river pours into Egypt, construction has begun on a massive dam being built in Ethiopia that could destabilise Egypt in a way that would make the last year of political upheaval look minuscule, analysts say.

If constructed at specifications revealed last year, the Grand Ethiopian Renaissance Dam would result in cuts in electricity, a reduction in agricultural lands and water shortages across major cities in Egypt, new studies say.

"In short, it would lead to political, economic and social instability," said Mohamed Nasr El Din Allam, who was Egypt's minister of water and irrigation until early last year. He edited a book-length collection of studies on the dam published last month. "Millions of people would go hungry. There would be water shortages everywhere. It's huge."

Those dire forecasts stem from Ethiopia's decision last year to announce an increase in the size of the dam, which is already under construction 40 kilometres from the Sudanese border. Ethiopian officials revealed the depth of the dam would be enlarged to 150 metres from 90m, alongside plans to boost electricity production and use water pooling behind the dam to irrigate more than 500,000 hectares of new agricultural lands.

Ethiopia's announcement has created new tensions in water-rights negotiations among the 10 countries that form the Nile Basin and emerged as one of the biggest diplomatic challenges for a growing Egypt.

More than any of the other countries along the basin, Egypt and Sudan are dependent on the water from the river because of their lack of secondary water resources and little rainfall. Egypt receives 55 billion cubic metres and Sudan receives 18.5bn cubic metres per year, under a series of agreements that date back to a 1929 treaty drawn up by Britain when it held power over much of North Africa.

Those agreements have long irked upstream countries, which they describe as a colonial-era injustice because of treaties' favourable distribution of water to Egypt and Sudan, as well as giving them the right to veto projects that would be "harmful" to their national interests.

The Nile Basin Initiative was established in 1999 to establish an equitable agreement among the countries. But divisions emerged from the start, hinging on Egypt's and Sudan's unwillingness to negotiate their share of the water and insistence on retaining veto rights. Ethiopia, Uganda, Tanzania, Rwanda and Kenya signed their own deal, known as the Entebbe Agreement, that said projects could be built as long as they don't "significantly" affect the water flow. Egypt, which sees the wording as a precursor to cuts of its share, called the agreement a "national security" threat.

Ethiopia in particular has struck a defiant stance, with Prime Minister Meles Zenawi saying in a television interview in 2010 that "some people in Egypt have old-fashioned ideas based on the

assumption that the Nile water belongs to Egypt… The circumstances have changed and changed forever".

Just a month after the uprising in Egypt forced Hosni Mubarak to resign and hand power over to the military, the Nile river tensions escalated to new levels when Ethiopia announced new details of the Grand Ethiopian Renaissance Dam. Ethiopian officials said there would be no impact on Egypt, but analysts and officials in Egypt argue the impact would range from bad to devastating.

The problems would start with the filling of the 62bn cubic metre reservoir behind the dam, which would immediately reduce the flow of water to Egypt and Sudan. How bad the impact would be depends on the rate they decide to fill it.

Egypt already has one of the highest rates of recycling water on the continent, reusing water in the Nile delta region as many as four or five times to meet its total needs of 75bn cubic metres a year. Kidney disease in those areas is on the rise and the country's northern lakes are becoming increasingly polluted from water reuse, which is hurting fish populations.

Mr Allam, the former water minister of Egypt, said the country needs solutions to bring even more water to Egypt and cannot sustain on less than its current allotment.

"I believe in the full right of Nile Basin countries, especially Ethiopia, to develop and increase their economies," he said. "But they shouldn't do this if it causes significant damage to their sister countries."

A new panel, with representatives from Egypt, Sudan and Ethiopia, as well as international water experts, is now tasked with assessing the impacts of the dam. They are expected to begin their work in mid-May.

Egypt's main diplomatic tool, analysts say, will be to lobby the World Bank and other donors not to provide financing to projects that hurt its share of the water. Ethiopia has started issuing bonds to raise money, but it would be unable to finance the US$4.8bn (Dh17.63bn) dam without help.

The sabre-rattling among the Nile basin countries has to do with two competing views: upstream countries are looking for development projects that benefit their growing populations quickly, such as dams that increase electricity production and agricultural expansion, while Egypt and Sudan are pushing for a longer term approach that would first enhance the flow of the river before agreeing to projects that will cut back the flow.

"We don't have a crisis in water, but we have a problem in managing it," said Hani Raslan, the director of the Sudan and Nile basin studies programme at the state-run Al Ahram Centre for Political and Strategic Studies in Cairo.

Observers in Egypt blame the dispute with Ethiopia - and the wider dispute with the lower basin countries - on Mubarak's neglect of African relations during his more than 30 years of rule that ended last year during a popular uprising.

"We used to have beautiful relations with the African countries," said Fathi El Taher, in the city of Abu Simbel on Lake Nasser near the Sudanese border. "But we abandoned them for Israel and the United States. We need long-term diplomatic solutions and that means going back to our brothers and investing in their countries."

Mr El Taher, 73, was one of the first mayors of Abu Simbel, which is famous for an ancient Egyptian tomb with huge carved statues of Pharoah Ramses II. The entire tomb had to be moved piece-by-piece to higher ground and reconstructed after the completion of the Aswan High Dam that created Lake Nasser and modern Abu Simbel.

"We know about the power of the river," he said. "It is everything to us."

"Ethiopia's giant dam muddies the waters downstream in Egypt", 23/04/2012, online at: http://www.newsdire.com/politics/2942-ethiopias-giant-dam-muddies-the-waters-downstream-in-egypt.html

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

❖ A political crisis is a poor time to negotiate water

Last year, when Ethiopia announced plans to build a massive dam on the Blue Nile River, Egypt described it as a threat to national security. It wouldn't be the only threat. Amid economic stagnation, an uncertain relationship with its neighbours and a chaotic political scene, negotiated rights to the Nile River may not be at the top of the agenda

It's an oversight that could come back to haunt every stakeholder. Egypt is not the only country that depends on the Nile as the lifeblood of agriculture. In theory, the Nile Basin Initiative of 1999 was meant to provide a forum to reconcile these interests, and renegotiate terms left by British colonialists more than a century ago. In practice, it has been a forum mostly for bickering.

In part because of Cairo's inflexibility in negotiations, seven upstream countries - Uganda, Ethiopia, Kenya, Tanzania, Rwanda, Burundi and Democratic Republic of Congo - signed another agreement last year that favoured their interests at the expense of Egypt and Sudan.

As The National's foreign correspondent Bradley Hope reported over the past two days, Egypt's vital agricultural sector faces serious challenges, not least from the new dam, rather ambitiously called the Grand Ethiopian Renaissance Dam. "It would lead to political, economic and social instability," said Mohamed Nasr El Din Allam, a former Egyptian minister of water and irrigation. "Millions of people would go hungry."

The dam would deprive Egypt, which relies on the river for 90 per cent of its water, of more than 17 billion cubic metres of water per year. But some experts say that amount of water is already wasted in different ways. On the other hand, construction might actually have positive outcomes for Egypt and Sudan by preventing floods. But that's a pretty big "if" for downstream countries to take on faith.

Better agricultural policies have topped the agendas of almost all of Egypt's presidential candidates. The construction of this dam, and associated unresolved water rights, show the difference between campaigning and policymaking. The inability to reach an agreement on water rights for more than a decade boils down to a lack of leadership. The former Egyptian regime failed to present a cohesive strategy on how to regulate water usage, arrogating itself the colonial-era veto on upstream decisions, and the country is now in a quandary.

This is just one, admittedly massive, of the dams that are being built and planned on the Upper Nile. Each country needs to come back to the negotiating table, not just to settle rights, but to cooperate on management. Whether an Egypt in turmoil can do so remains to be seen.

"A political crisis is a poor time to negotiate water", 24/04/2012, online at:
http://www.thenational.ae/thenationalconversation/editorial/a-political-crisis-is-a-poor-time-to-negotiate-water

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❖ The Great Nile River War

April 29, 2012: Ethiopia and Egypt, working through the AU (African Union), have asked Sudan and South Sudan to resume negotiations to end their war. Discussions have taken place in Ethiopia and Egypt. Since the time of the pharaohs Egypt has regarded Sudan as its backdoor. Ethiopia has remained nominally neutral in the Sudan-South Sudan War, but has cultural and historical connections with the people of South Sudan. Egypt is predominantly Muslim, as is Sudan, Ethiopia is predominantly Christian, as is South Sudan. Ethiopia and Egypt are both much more powerful than either of the Sudans. The nightmare scenario for an escalating East African war has Egypt aligning with Sudan and Ethiopia aligning with South Sudan. Call it The Great Nile River War, because Nile water issues play a huge role in Ethiopian and Egyptian strategic planning. Ethiopian and Egyptian leaders, however, know that war will have no winner. Cooler heads in Ethiopia and Egypt are trying to calm the hot heads in Sudan and South Sudan.

The government is expanding its blocking of hostile or opposition web sites. The website of a major opposition newspaper, the The Reporter, has been blocked, by the state-owned communications company, for a week.

April 27, 2012: Oromo rebels claimed that Ethiopian security forces killed four Oromo civilians and wounded eight in an incident in the town of Hassasa

April 24, 2012: The US warned its citizens to avoid hotels and government buildings in Nairobi, Kenya because of possible Islamic terror attacks. Kenyan and Ethiopian military forces remain engaged in operations in Somalia and the Somali Islamist group al Shabaab has threatened retaliation attacks in Kenya. Two terror attacks (with grenades) in Nairobi (October 2011) had links to Al Shabaab. Those attacks left one dead and 20 injured. Another grenade attack took place March 10, 2012, on a bus loading zone. Six people were slain and 63 wounded in that attack.

April 23, 2012: Eritrea accused the CIA of attempting to smear its president, Isaias Afewerki, by claiming that he is fatally ill. There are rumors that Afewerki is sick.

April 22, 2012: Egyptian officials are once again worrying that Ethiopia's Grand Millennium Dam project will greatly reduce Egypt's share of Nile River water. The Egyptian statements follow an Ethiopian report that the dam may be enlarged (with the lake behind it having a depth of 150 meters instead of 90). The Ethiopian government rejected the Egyptian complaints. Ethiopia wants to sell electricity generated by the dam to Egypt.

April 21, 2012: Ethiopia has asked that South Sudan to help facilitate the return of several hundred South Sudanese tribal militiamen who fled into Ethiopia to avoid South Sudan's Jonglei state disarmament program.

April 19, 2012: Somalia's Al Shabaab Islamist militant group claimed that its fighter ambushed an Ethiopian military convoy in Somalia's Galgadud region. The pro-Somali government Islamist group, Ahlu Sunna Wal Jamaa, said that a firefight did occur but that no Ahulu Sunna militiamen or Ethiopian soldiers were killed in the incident. Another Somali source reported that an Ethiopian vehicle hit a landmine and three soldiers died in the incident. Only a handful of journalists have

managed to get into the Galgadud area, where Ethiopian forces are deployed, so most battle reports consist of allegations and claims and counter-claims by the belligerents. The other sources, however, are usually cell phone reports from local Somali civilians who phone friendly journalists or aid organization workers.

April 18, 2012: Sudan has asked Ethiopia to help the occupation of its Heglig oil field (South Kordofan state) by South Sudan. Ethiopia has a peacekeeping force deployed in the disputed Abyei region (border of Sudan and South Sudan).

April 17, 2012: Ethiopia accused Eritrea of conducting mass kidnappings of Ethiopian civilians living near the Ethiopia-Eritrea border

"The Great Nile River War", 29/04/2012, online at: http://www.strategypage.com/qnd/ethiopi/articles/20120429.aspx

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

❖ Nigeria: Need for a Hydrological Blueprint

The need for safe and clean water for domestic and industrial use by man has assumed global importance. Many countries have had to formulate policies aimed at generating water for municipal use and their resultant experience in this endeavour is quite interesting. Over the years the experiences of the countries in this regard have coagulated into main policy thrusts.

Availability of water for domestic use sadly is fast becoming a political issue instead of the economic and social importance it should attract. The issue of unavailability of clean and safe water is no longer one that is restricted to land locked countries.

Negligence and ill informed economic strategies have combined to make safe and clean water an issue all countries should look into.

Nigeria is blessed with inland surface water, in addition to huge underground water. Water, two large rivers - the Benue and Niger sufficiently drains the country, with an articulate network of tributaries and distributaries. With an articulate network of the much needed surface water for irrigation and domestic use through the creation of manmade dams.

However, the distribution of surface water for drinking purposes has remained a nightmare for successive governments. Huge cities especially state capitals lack water. Life is miserable living in such cities without water.

We are all aware of the fact that water is life as can be gleaned from statements like, No Nile, no Egypt or "water, water everywhere but not a single drop to drink"

One needs to drive through the streets of major towns in Nigeria in order to discover the true state of affairs. Water vendors have virtually taken over the supply of water in Nigeria. It is against this backdrop and the need to provide adequate safe and clean water for the populace that informed the Federal Government's resolve to create an agency that would provide logistic and informational input in its drive to self sufficiency in water generation and distribution.

Thus the creation of the Nigerian Hydrological Services Agency NIHSA is a step in the right direction. Today, Nigeria, and indeed the citizenry can rely on the NIHSA to get information and logistic data on where to locate water, and how to access same.

The latest technological advances made in the trapping and preservation of surface water, the purification of large bodies of water in order to reduce water borne disease e.t.c can be made available to the public by NIHSA. It is expected, in the face of dwindling Federal Government's subventions that NIHSA would seek ways of commercializing its activities. Before doing this, however, there is

Need to amend the law establishing the agency. The Nigeria Hydrological Services Agency Act 2010 therefore needs to be reviewed to include powers to

(a) offer mandatory advisory services to State and Local Government on new and ongoing water projects

(b) Offer mandatory supervisory service on private water projects

(c) Mandatory certification of projects Vis avis their quality and impact assessment on the environment

(d)Mandatory consultancy services for any state or local government desiring to create dams and bore holes

All this would need an all embracing blue print i.e hydrological blue print, which would mean functional hydrological map for the country with the expected grounds well of information and data provided by this agency. Nigeria could well be said to be on the right track towards an improved and sustainable assessment of surface and ground water for better management.

There is also a need for a better co-operation between NIHSA and sister agencies like the Nigerian Geological Service Agency, the Federal Ministry of Agric and Water Resources, Nigerian Inland Water ways Agency (NIWA) etch through seminars joint projects and exchange of staff.

"Nigeria: Need for a Hydrological Blueprint", 22/04/2012, online at: http://allafrica.com/stories/201204230717.html

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❖ TigerNET - Earth Observation for the management of water resources in Africa

TIGER-NET is a EUR1.5m project of the European Space Agency (ESA), designed to increase African participation in the rapidly evolving global Earth Observation (EO) system. The project hopes to make a significant contribution to integrated water resources management in Africa. A consortium led by GeoVille and GRAS, a DHI subsidiary company, has been selected to carry out the project.

The TIGER initiative – launched by ESA in 2001 - supports water authorities, technical centres and other stakeholders in the African water sector to increase their ability to collect and use water by exploiting EO products and services. The newest TIGER activity, TIGER-NET is developing EO solutions for integrated water resource management (IWRM) to support numerous African water authorities. Particular attention will be given to major trans-boundary basins in Africa, such as the Nile and the Lake Chad Basin.
A cost-effective water observation and information system based on open source software and exploiting satellite data will be installed in each of the selected water authorities to monitor and assess water resources.

TIGER-NET was officially launched at the World Water Forum in Marseilles in March 2012 in a side event chaired by the African Ministerial Conference on Water. It will run for a period of three years, starting 1 April 2012.

Successful and sustainable development of earth observation applications requires dedicated capacity building and training of African scientists and water authorities. Accordingly, capacity building will be an important part of the project.

Partners: As project partners, GeoVille and GRAS will be leading the consortium with support from the following organisations: Institute of Photogrammetry & Remote Sensing, Vienna University of Technology (TU Vienna, Austria), Dept. of Environmental Engineering, Technical University of Denmark (DTU ENV, Denmark) and Department of International Health, University of Copenhagen (ISIM, Denmark).

"TigerNET - Earth Observation for the management of water resources in Africa", 25/04/2012, online at: http://www.dhigroup.com/News/2012/04/25/TigerNETEarthObservationForTheManagementOfWaterResourcesInAfrica.aspx#.T5ppBYeNaWg.facebook

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❖ Governments failing to avert catastrophic climate change, IEA warns

Governments are falling badly behind on low-carbon energy, putting carbon reduction targets out of reach and pushing the world to the brink of catastrophic climate change, the world's leading independent energy authority will warn on Wednesday.
The stark judgment is being given at a key meeting of energy ministers from the world's biggest economies and emitters taking place in London on Wednesday – a meeting already overshadowed by David Cameron's last-minute withdrawal from a keynote speech planned for Thursday.
"The world's energy system is being pushed to breaking point," Maria van der Hoeven, executive director of the International Energy Agency, writes in today's Guardian. "Our addiction to fossil fuels grows stronger each year. Many clean energy technologies are available but they are not being deployed quickly enough to avert potentially disastrous consequences."
On current form, she warns, the world is on track for warming of 6C by the end of the century – a level that would create catastrophe, wiping out agriculture in many areas and rendering swathes of the globe uninhabitable, as well as raising sea levels and causing mass migration, according to scientists.

Van der Hoeven, whose deputy will present the IEA's findings to the Third Clean Energy Ministerial, put the blame squarely on policymakers, and challenged ministers to step up.

She said: "The current state of affairs is unacceptable precisely because we have a responsibility and a golden opportunity to act. Energy-related CO2 emissions are at historic highs, and under current policies, we estimate that energy use and CO2 emissions would increase by a third by 2020, and almost double by 2050. This would be likely to send global temperatures at least 6C higher within this century."

The prime minister has caused controversy because a planned "keynote" speech for Thursday at the meeting – which would have been his first on green issues since being elected – has been scaled back to only a few introductory remarks at a round table meeting.

"The speech was a planned and much-anticipated major intervention, so his decision not to deliver it is a massive failure of leadership," said David Nussbaum, chief executive of WWF-UK, the group that took Cameron on his famous "husky-hugging" trip to the Arctic in 2006. "Now, with his government's approach to climate and energy policy in disarray, people are asking where the prime minister stands on these key issues."

Energy experts speculated he was unwilling to make a long public appearance in front of the press during a what has been a torrid few weeks.

In its report, Tracking Clean Energy Progress, the IEA, widely regarded as the gold standard for energy research, ranked progress on 11 key low-carbon indicators, including renewables, nuclear energy and carbon capture and storage. It found the world was on track to meet just one of these targets.

Some technologies that governments have been relying on to reduce emissions – such as carbon capture and storage – were not even off the ground yet, despite years of development.

To meet the carbon cuts that scientists calculate are needed by 2020, the IEA says, the world needs to generate 28% of its electricity from renewable sources and 47% by 2035. Yet renewables now make up just 16% of global electricity supply.

On carbon capture and storage, the picture is even worse: the world needs nearly 40 power stations to be fitted with the technology within eight years, and so far none at all have been built.

Plans for new nuclear plants have been affected by last year's nuclear accident at Fukushima, Japan, and expectations for atomic energy capacity in 2025 have been scaled back by 15%.

That shortfall will have to be made up elsewhere, such as by further increases in renewables, if the world is to avoid temperature increases of more than 2C above pre-industrial levels – the limit of safety, scientists say, beyond which climate change becomes catastrophic.

There were some bright spots on the low-carbon energy scene, the IEA said – "mature" renewable technologies, such as onshore wind, hydro-electricity and solar panels, were broadly on track.

However, the capacity for some of these technologies is limited – most of the best locations for hydroelectricity in many countries are already in use, for example. The world urgently needed to bring forward other technologies, such as offshore wind, if the targets were to be met, one of the report's authors said.

Energy efficiency is the most cost-effective way to cut emissions and increase energy security, but businesses and governments were failing to invest in it, the report found. Progress was also slow on electric vehicles and more efficient cars, while of the coal-fired power stations being built, about half continued to use old inefficient technology instead of more modern designs.

The ministers meeting on Wednesday are expected to discuss international co-operation on low-carbon energy, and ways of encouraging businesses to invest in the infrastructure needed.

Van der Hoeven said: "The ministers meeting this week in London have an incredible opportunity before them. It is my hope that they heed our warning of slow progress, and act to seize the security, economic and environmental benefits that the clean energy transition can bring."

"Governments failing to avert catastrophic climate change, IEA warns", 25/04/2012, online at: http://www.guardian.co.uk/environment/2012/apr/25/governments-catastrophic-climate-change-iea?CMP=twt_fd&utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=7969285181-RSS_EMAIL_CAMPAIGN&utm_medium=email

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❖ Taking the Waste Out of Wastewater'

Fourteen states suffering under drought. Water use in Southwest heads for day of reckoning. Water-pollution laws violated more than 500,000 times in five years. Ruptures in aging water systems cause pollutants to seep into water supplies.

The above reporting from The Times speaks to a growing reality: the United States faces a water crisis. In making the feature documentary "Last Call at the Oasis," I found the flow of evidence bracing in its breadth and acceleration, but the underlying dynamics are not new: we use more water than the system can naturally replenish, and we abuse the supply we have. During, say, periods of drought, we might fitfully curtail our consumption habits, but when it comes to long-term management strategies requiring long-term sacrifices, we balk. Isn't clean and abundant water a basic right? We just need to find more water!

While we can't "make" more water, there is one solution to water shortage problems that addresses issues of both quality and supply. Without mining an ancient aquifer, draining a natural spring or piping in the pricey harvest from a greenhouse-gas-and-brine-generating desalination plant, there is a solution to provide a valuable source of extremely pure water: reclaim it from sewage. The stuff from our showers, sinks and, yes, our toilets. In Israel, more than 80 percent of household wastewater is recycled, providing nearly half the water for irrigation. A new pilot plant near San Diego and a national "NEWater" program in Singapore show it's practical to turn wastewater into water that's clean enough to drink. Yet, in most of the world, we are resistant to do so.

Why?

We think we are rational beings, but we are not. We are emotional creatures, subject to obscuring feelings like fear and disgust. No one knows more about this than Paul Rozin, the subject of this piece, who has studied disgust for decades. His work shows us the fallacy in assuming that, given the facts, people will make logical choices. While recycled water may be a smart and clean way to manage our water supply, our primitive instincts are more programmed to fear the murky water hole than to worry about climate change, new contaminants and population growth. We should think green, but we can't help thinking brown. Until we understand the very human, irrational component to our actions — or lack thereof — we'll still be throwing out the baby with the bathwater.

The Academy Award-winning filmmaker Jessica Yu is the director of the forthcoming "Last Call at the Oasis," a feature documentary on the water crisis for Participant Media. Her nonfiction and scripted films include "Protagonist," "Ping Pong Playa" and "In the Realms of the Unreal."

"Taking the Waste Out of Wastewater'", 21/04/2012, online at:
http://www.nytimes.com/2012/04/22/opinion/sunday/taking-the-waste-out-of-wastewater.html?_r=1

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

❖ Doha continues preparations to host the 10th Gulf Water Conference

Qatar General Electricity and Water Corporation 'KAHRAMAA', the Water Science and Technology Association (WSTA), and the Secretariat General of the Co-operation Council for the Arab Gulf States have jointly organised The 10th Gulf Water Conference.

The conference takes place over three days (until April 24) at Doha's Grand Hyatt Hotel, with the title 'Water in the GCCStates: The Water-Energy-Food Nexus' and under the patronage of H.E. Dr Mohamed Bin Saleh Al-Sada, Qatar's Minister of Energy and Industry on the top of Ministers list, high officials fromGCC, and Arab and international water, energy, and food professionals.

Main speakers in the opening ceremony will be H.E. Dr Mohamed Bin Saleh Al-Sada Qatar's Minister of Energy and Industry, H.E. Eng. Abdullah Bin Abdulrahman Al-Hossayen Saudi's Minister of Water & Electricity, H.E. Dr. Abdullatif Bin Rashed Al-Zayanni, Secretary General of the Co-operation Council for the Arab Gulf States, and H.E. Eng. Essa Bin Hilal Al-Kuwari, President of KAHRAMAA and the conference president.

Water is, of course, vital for human survival. In the GCC countries - which are situated in one of the driest regions of the world - water management and its sustainability has grown to be one of the most important and challenging tasks to be tackled by policy and decisions makers in the GCC countries which share common economic and social growth interests. Desert climate, limited available natural water resources, the growing demands for the water resources, the impact of fossil energy extensive use on the environment, limited food resources coupled with the huge urban and economic developments witnessed in the Gulf region created new challenges and path for improvement.

This is the overall issue to be discussed at the conference, which will concentrate on seven main topics, which are going to be presented by more than 150 Arab, GCC and international researchers, and they will be discussed by more than 50 water, food and energy related subjects, among them 25 keynote speakers in the conference sessions.

Moreover, the issue of the supply of water for domestic, agriculture, urban, industrial use is vital worldwide, and in the GCC region has a special characteristics due to its deserted nature. This conference, will discuss how supply can keep pace with demand in a sustainable and feasible way.

Water leaders, decision makers, and experts from GCC and the world will have the opportunity to meet in Doha, network and share thoughts and concerns of water resources and energy management at this conference. Over the next three days we will be looking at best practices, experiences and models of the sustainable planning and management for water, energy, and food as well as the necessary social, economic, legislative, and technical considerations. There is, evidently, much to discuss.

The 10th Gulf Water Conference attract the attention of national and international companies, at the top of them conference, Qatar National Food Security Program, as a strategic partner; Sinohydro, Qatar Electricity and Water Company, and Qatar Petroleum, as 'platinum' sponsors.

In addition to that, Qatar Gas, Qatar Building Company, HBK Contracting Co., Pegos and Qatar Cool signed in as 'gold' sponsors, and ABB, Torishima, Petroserv, Toray, Al Obeidly GE, Habtoor Leighton Group, Mustafawi Trading, Al Waha Contracting, Gulf House, and Amiantit Qatar Pipes Co., as 'silver' sponsors. The conference lanyard is sponsored by Global Water Sustainability Center (ConocoPhilips) and Qatar Airways as the conference Official Carrier. Moreover, the conference get the attention of many local and international media house, Environment and Development magazine, Petrofinder, Utilities Middle East, Global Water Intelligence, Oxford Business Group, and Qatar Construction Sites.

"Doha continues preparations to host the 10th Gulf Water Conference", 22/04/2012, online at: **http://www.ameinfo.com/doha-continues-preparations-host-10th-gulf-297835**

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

❖ H2O Solutions Limited Announces Additional Middle East Contracts

Major orders for desalination systems were confirmed today by H2O Solutions Limited, who has been working with multiple industrial and municipal clients in the region.

Shanghai, China, April 28, 2012 --(PR.com)-- H2O Solutions has not released the dollar value or other details of the contracts, citing a possible announcement of an initial public offering (IPO) of the company in the near future. It was reported, however, that the innovative and cost effective technology makes H2O Solutions well positioned to gain a major market share in this part of the world, where fresh water is most scarce.

H2O Solutions' high efficiency jet pumps and modular desalination units have seen widespread installation in seven countries within Asia. Low operating costs and high duty ceramic components have led to a steadily increasing demand by seaside cities and industrial fresh water consumers.

H2O Solutions Limited specializes in nano-membrane purification and multi-charged plate desalination technologies. The company provides innovative solutions that include development, testing, integration, engineering, and manufacturing of an extensive array of water treatment systems. Through joint projects with key international partners, H2O Solutions provides cost-effective and environmentally friendly water purification and desalination systems.

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regulatory matters, general economic conditions, and other factors. Actual results and developments may differ significantly from those expressed or implied in this article. H2O Solutions Limited does not undertake to update, revise or correct any of the forward-looking information.

"H2O Solutions Limited Announces Additional Middle East Contracts", 28/04/2012, online at: http://www.pr.com/press-release/408567

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❖ First Nation's water imperils economy, health and maybe even pregnancies

Like many remote First Nations, Slate Falls is surrounded by abundant, sparkling blue water that it can't seem to drink or pump sufficiently into its houses.

The water defines this northwestern Ontario community. It gives the First Nation its name, it determines the design of the neighbourhoods, and it lends solace to the community's 200 inhabitants.

But the lack of proper water infrastructure also has a pervasive effect on the band's economy, its health and everyday living conditions on the reserve just north of Sioux Lookout.

Slate Falls is one of the more than 300 First Nations in Canada with a water system that has been deemed high risk, according to a ground-breaking national assessment published last year.

The band leaders are frustrated because they can't expand or set up more buildings to deal with a growing population. The water intake pipes are just too small to accommodate more structures.

"I believe we have lots of potential in this community, if we had better infrastructure," says Kathy Loon, a band official lugging around a thick stack of reports about water quality.

Residents are frustrated because they have to hike down to the reverse osmosis water treatment centre to fill up their jugs — a tough task for people like 82-year-old Dinah Loon, Kathy Loon's mother.

The elderly woman lives in a tiny house with another daughter and her family, crowded together into two bedrooms since the band can't build any more houses.

But perhaps the most worrisome aspect of Slate Falls' water problems is the effect the band's leaders believe it is having on pregnant women.

Miscarriages have soared in the past five years. Chief Lorraine Crane says an informal count shows 25, although she says many are not reported. Health officials suggest that about 40 per cent of pregnancies end in miscarriage — double the national average believed to be about 20 per cent.

The kindergarten and junior kindergarten classes have just a handful of kids in each class — unlike other First Nations where the classrooms are overflowing.

The band's leaders can't be sure that the drinking water is directly linked to the rate of miscarriage. They point to studies that suggest a link between miscarriage and trihalomethanes — a byproduct of chemicals used to purify water.

There are other possibilities, however. Diabetes, high blood pressure and the widespread abuse of prescription drugs could also be to blame.

"One of the things that we have as a First Nation is that we've lost a lot of unborn babies. Very high. We can't say it's this or that. But we did see a study that came out about water, something in the water," says Crane.

"I don't have any proof but I do know that it is not normal."

The band's houses are all on the edge of the lake, and serviced by one of 11 pump houses. All of the pump houses are considered high risk, and none of the tea-coloured water is drinkable.

Officials at Aboriginal Affairs say they are working with the First Nation and regional authorities to make sure the local pump house operators follow the right procedures.

By the band office, a small reverse osmosis station gives the band its drinking water — although many residents say they often drink from the tap.

Armed with analyses, Crane figures she needs a $3.5-million investment to bring the community's water up to scratch.

Ottawa, however, is focused on legislation rather than funding these days. After almost five years of trying, a First Nations clean water bill is working its way through the legislative process, establishing regulations and defining authorities for improving water systems on reserves.

The bill does not come with funding attached, and will require extensive consultations with provincial authorities. Government officials say funding may come later, after the regulations are written and First Nations begin to phase them in.

The national assessment pegged funding needs at $4.9 billion over five years. But the federal government says that by 2014, it will have invested $3 billion in water and waste water systems on reserves, which will go a long way towards addressing the problems set out in the assessment.

As far as Kathy Loon is concerned, the legislation means very little for her community, for her mother trying to arrange for people to haul water for her every day, or for her friends losing their babies.

"It's one stall tactic after another."

“First Nation's water imperils economy, health and maybe even pregnancies”, 22/04/2012, online at: http://news.yahoo.com/first-nations-water-imperils-economy-health-maybe-even-202125648.html?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=8975e82088-RSS_EMAIL_CAMPAIGN&utm_medium=email

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❖ Must we balance the books on the back of the poor?

In a massive stroke of hypocrisy, Foreign Minister Bob Carr this week released a media statement celebrating Australia's proud record of helping people living in poverty through our aid program at the same time as his colleagues in Canberra were plotting to cut billions from the future aid budget.

The statement was used to announce Australia's pending membership of the Sanitation and Water for All Partnership – a global partnership aimed at increasing access to safe water and basic sanitation, promoting good hygiene practices, and strengthening water and sanitation systems in developing countries.

Senator Carr used the announcement to reminisce on the many achievements of our aid program on water and sanitation to date.

"Australian aid has helped provide new water systems to more than 155,000 people in East Timor since 2002 and brought drinking water to some of the nation's most remote communities," his statement proudly proclaimed.

It went on to celebrate Australia's achievements of connecting 330,000 people in Indonesia to water and sewerage networks and providing better access to clean water for an estimated 2.5 million people in rural Vietnam.

Meanwhile, behind closed doors in Canberra, Minister Carr's Cabinet colleague Wayne Swan has apparently been cutting billions from the future aid program in order to fund the Government's budget surplus - billions of dollars that could have gone to funding the life-saving work Carr was furiously promoting to the media.

In 2007, Kevin Rudd made an election promise to increase the aid budget to 0.5 per cent of gross national income (GNI) by 2015. Julia Gillard reaffirmed this promise ahead of the last elections.

Currently we spend just 0.35 per cent of our GNI on aid.

Yet it is patently clear the government has decided to break this promise. Over the past two weeks journalists, aid agencies and Australians of all walks of life who support our aid program have been calling on Senator Carr to assure the public that the Government will honour its promise.

Not only has he failed to do so, he has remained altogether silent on the issue.

Rory Hunter is an Australian working as a disaster risk management specialist for the Mekong River Commission (MRC) in Cambodia, a recipient of AusAID funding.

I asked Hunter this week what he thought of Australia joining the Sanitation and Water for All Partnership at the same time as planning to cut billions from the future aid budget.

"This funding makes possible important work linking energy, food and water in the Mekong countries," Hunter said.

"It ensures the sustainable development of water resources to protect the livelihoods of 60 million people living within the Mekong corridor, whose survival depends on the capture fisheries, agriculture, drinking water, and sanitation that the Mekong provides."

Hunter's project relies on AusAID funding. But more importantly, so do the lives of millions of people.

"Without the AusAID funding these projects currently receive, the lives of millions of people living within 15 kilometres of the Mekong River, who rely on its water resources for survival, will be lost," Hunter said.

Now, we don't know which programs the Government is planning to cut or defer. Hunter's work with the Mekong River Commission is no doubt safe.

The point is that Australian aid saves lives. Do we really want to balance the books on the back of the world's poor?

If this is the Government's intention, they owe the Australian public an explanation. Senator Carr's silence on the matter is unacceptable.

The lives of millions of poor and excluded people are hanging in the balance.

"Must we balance the books on the back of the poor?", 24/04/2012, online at:
http://www.abc.net.au/unleashed/3969864.html

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❖ Conference on energy, climate and water management

Islamabad—The SAARC Chamber of Commerce & Industry (SCCI) in collaboration with Sustainable Development Policy Institute (SDPI) supported by Freidrich Naumann Foundation, Fur Die Freiheit, Regional office, New Delhi will organize Conference on Energy, Climate Change and Water Management in South Asia on Monday, the 30th April 2012.

The conference will also be inaugurated by Chairman National Disaster Management Authority, Government of Pakistan and will be addressed by Dr. Abdul Quyum Suleri, Executive Director, SDPI, Mr. Helal Reza, Director SAARC Energy Centre, Mr. Iftikhar Ali Malik, Vice President and Iqbal Tabish. Secretary General, SAARC CCI and Mr. Zubair Ahmed Malik, Chief Coordinator EFN, Pakistan.

Chaired by Mr. Olaf Kellerhoff, Resident Representative, Friedrich-Naumann-Stiftung für die Freiheit, Pakistan, the Technical session will be addressed by Mr. Arshad H. Abbasi, Advisor Water, Energy and Environment, Sustainable Development Policy Institute (SPDI), Pakistan, Mr. Raveen Ekanayake, Institute of Policy Studies of Sri Lanka (IPS), Sri Lanka and Mr. Kanwar M. J. Iqbal, Senior Research Associate – Environment, Sustainable Development Policy Institute, Pakistan.

"This is the first time that the Private Sector on regional level has involved in issues of Energy and Climate Change, which indicates not only the prime importance of these issue but also their realization as the areas of priority concern" said Secretray General of SAARC CCI while adding that the organization recently organized a prestigious Conference on Climate Change and Energy in Paro, which was inaugurated by Hon'ble Prime Minister of Bhutan and invited the attention of the policy makers to adopt appropriate and immediate measures to mitigate the impact of climate change and promote energy cooperation in South Asia.

"Conference on energy, climate and water management", 29/04/2012, online at: http://pakobserver.net/detailnews.asp?id=152926

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