



ORSAM WATER BULLETIN

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





Issue 86

ORSAM WATER BULLETIN

23 July – 29 July 2012

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Spanish Agbar Looks to Invest in Southeast Turkey

Spanish-based Agbar, a company which is active in the water sector in 12 different countries and provides water to 200 municipalities in Spain, is expressing interest in investment opportunities in Turkey's southeast, especially Diyarbakır and Şanlıurfa.

Jose-Juan Gonzalez, who heads Agbar's Turkish-based subsidiary, Aqualogy Su Kanalizasyon Yatırım and İşletme, said he was very impressed with the region's economic and social development, according to a statement by the Karacadağ Development Agency, which hosted Gonzales during his visit to the region and organized his meetings.

"Despite the global economic crisis, Turkey's strong position affords us new investment opportunities. With the Karacadağ Development Agency's invitation to Diyarbakır and Şanlıurfa, we were able to see the development effects of the Southern Anatolia Project [GAP] dam project in the region and were very impressed," he said.

Key investment opportunities in the region

Gonzales had the chance to meet with officials from the Diyarbakır Municipality as well Diyarbakır Waterworks Authority (DİSKİ) and discovered that there were important investment opportunities in the area.

"The regions tied to Şanlıurfa house a large population due to the importance of agricultural activities. We can help them with water management," Gonzalez said.

"If the conditions are appropriate, we can provide financing. We also provide employment opportunities for subcontractors in the areas in which we invest," he added.

Agbar, which was established 145 years ago, is active in all phases of the water process including drinking water, distillation, customer relations and all aspects of water management, he said.

"Spanish Agbar Looks to Invest in Southeast Turkey", 27/07/2012, online at: http://www.turkishweekly.net/news/139125/spanish-agbar-looks-to-invest-in-southeast-turkey-.html



Iran and Syria make energy deals amid crisis

(Reuters) - Iranian and Syrian officials entered into agreements this week on energy and water supply, Iranian news agencies reported, signaling continued cooperation between the two countries as the Syrian government battles an uprising within its borders.

A Syrian economic delegation has been touring <u>Iran</u> this week, and signed deals with Iranian officials on electricity exports from Iran to Syria, Fars news agency said on Friday.

Iran is a rare ally for <u>Syria</u>, which faces international condemnation over the government's crackdown on a sixteen-month rebellion that has in recent weeks reached its largest cities.

International sanctions levied against Iran for its disputed nuclear program have put enormous pressure on its economy, raising the specter of factory closures and higher unemployment.

Iran's energy minister, Majid Namjou, said this week Tehran was prepared to help Syria reconstruct damaged facilities such as power plants.

Syrian activists accuse government forces of shelling residential areas such as Homs, causing huge damage.

"The Islamic Republic of Iran will not leave Syria alone in such a difficult situation," Namjou was quoted as saying on Thursday by Iran's Press TV. Namjou met with Syrian electricity minister Imad Khamis and water resource minister Bassam Hanna, Press TV reported.

Iran will export 50 megawatts of electricity to Syria via Iraq, according to one of the agreements signed, and the two countries will also cooperate in waste and water management, Press TV reported.

"Iran and Syria make energy deals amid crisis", 28/07/2012, online at: http://www.reuters.com/article/2012/07/28/usiran-syria-idUSBRE86R0DZ20120728

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Iran vows 'unchangeable' support for Syria with 'experience and capabilities'

Iran has pledged more support for Syria amid mounting "foreign pressure" and promised not to leave its ally "alone in difficult times."

"Given that powers have united to damage the Syrian nation, Iran's stance toward Syria is not changeable – it will always stand by its Syrian brothers," Iran's first vice president, Mohammad Reza Rahimi, said on Thursday while meeting Syria's deputy prime minister, Omar Ibrahim Ghalawanji, in Tehran.

The secretary of Iran's National Security Council, Saeed Jalili, called relations between Iran and Syria "strategic", saying that Tehran is ready to support Damascus "more than before in the face of foreign pressure."

In response, Ghalawanji expressed his gratitude to Iran, stressing that the West's "*cruel sanctions*" against Syria have hit the Syrian people more than they have affected the government.

Earlier on Wednesday night while meeting Ghalawanji, Iran's vice president in charge of international affairs, Ali Saeedlou, said that "Tehran is ready to give its experience and capabilities to its friend and brother nation of Syria."

The statements come while a Syrian delegation of 15 ministers and high-ranking officials are in Tehran on a three-day visit to seek the expansion of economic cooperation.

Tehran expressed its readiness to reconstruct facilities damaged in Syria during the uprising. The Syrian delegation also secured Iran's support in developing electricity and water facilities.

Syria and Iran have agreed a deal on importing 50MW (megawatts) of Iranian electricity into Syria via Iraq. The figure will climb to 200MW at the next step.

"We agreed with Iran that in one month agreements will be made with Iraq, so that putting problems to one side, electricity imports from Iran will begin," Syria's electricity minister, Imad Khamis, said on Thursday.

Iran and Syria have also signed cooperation agreements which include the construction of a dam along with a power plant. At the same time, Iran reiterated it is not going to dispatch military units or hardware to Syria. On Wednesday Iran's defense minister, General Ahmad Vahidi, said that at present "Iran has no military forces in Syria" and does not plan to send any.

"Iran vows 'unchangeable' support for Syria with 'experience and capabilities", 27/07/2012, online at: http://www.rt.com/news/iran-vows-support-syria-170/

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❖ Iran, Syria seal two electricity, water agreements

Iran and Syria have signed two memoranda of understanding (MoUs) on the expansion of bilateral cooperation in the fields of electricity and water.

The agreements were signed by Iran's Energy Minister Majid Namjou and Syrian Minister of Electricity Imad Khamis and Minister of Water Resources Bassam Hanna on Thursday.

According to one agreement, Iran will export 50MW electricity at the first phase to Syria via Iraq. The figure will climb to 200MW at the next step.

Iran's private companies will build and complete power plants in Syria and supply equipment for electricity network and distribution.

Iranian experts will also hold training courses for Syrian workforce in the field of electricity engineering.

Based on the MoUs, Iran and Syria will also bolster cooperation on ways to use modern energies.

According to the other agreement, Tehran and Damascus will cooperate to export technical and engineering services and implement projects in such areas including water and waste and dam building.

"Iran, Syria seal two electricity, water agreements", 26/07/2012, online at:

http://www.presstv.com/detail/2012/07/26/252872/iran-syria-sign-water-electricity-mous/



Iran, Syria Sign Water, Electricity Agreements

TEHRAN (Bloomberg) — A Syrian delegation on a visit to Tehran has signed agreements with Iran in the fields of electricity, health and water, Syria's state-run Sana news agency said. The Iranian Energy Ministry and the Syrian Electricity Ministry signed a memorandum of understanding on supplying Syria with electricity, importing transmission and distribution equipment, establishing generating plants and installing automatic remote reading systems, Sana said. Another agreement covered the establishment of waste-water treatment plants and setting up a water resource management plan in Syria, while officials also discussed sale of medical equipment and medicine, according to the agency. Syria has been under international sanctions since last year because of the government's crackdown on protests, and has been seeking to compensate by boosting trade with allied countries such as Iran.

"Iran, Syria Sign Water, Electricity Agreements", 27/07/2012, online at: http://www.ooskanews.com/daily-water-briefing/iran-syria-sign-water-electricity-agreements 23609



Historic Alwan Bridge at great risk

Alwan Bridge was constructed in 1860,

Civil society organizations and activists in the Khanaqin District requested the Kurdistan Regional Government (KRG) to form a professional committee in order to find a solution for the serious damages on the Alwan Bridge that have caused great concern.

The Alwan Bridge has been facing critical damages due to the construction of several dams by Iran on the Alwan and Sirwan Rivers that flow to the region from Iran, that have caused several water shortages in the Kurdish Region.

In addition to damages on the bridge, Iran's construction of the dams has raised concern among the inhabitants of the area, especially this year, due to the drought and lack of water in the rivers, dams, and wells.

"The dams made on the river by Iran, have created water shortages and have resulted in big damages in the Alwan Bridge. If things continue this way, the bridge will be destroyed completely," said Sarwar Ali, a member of the Khanaqin Defense Committee.

Ali urged the Kurdistan Parliament and the KRG to take this issue into consideration through the formation of a committee. "The committee can investigate the issue and find a way of renovating it," noted Ali.

Alwan Bridge was constructed in 1860 by the Persians and has been renovated several times by the former Iraqi regime and also one time by the KRG.

"Historic Alwan Bridge at great risk", 24/07/2012, online at: http://www.kurdishglobe.net/display-article.html?id=4450CBEF1D6DFEB6D29F4A7D35F4CFEA



❖ Iran's Lake Oroumiyeh Has Lost 65 Percent of Surface Water

TEHRAN (Payvand Iran News) — Iran's Environment Organization has announced that 65 percent of Lake Oroumiyeh's surface has already dired up. Asghar Mohammadi Fazel, a spokesman for the Environment Organization, announced on Sunday that the situation remains critical, as many parts of the lake have turned red due to the high concentration of minerals. Mohammadi Fazel added that an agreement to have the three provinces of Western Azerbaijan, Eastern Azerbaijan and Kurdistan each provide 1.3 billion cubic metres of water for the lake has not been honoured. He added that the Ministry of Power was supposed to provide an additional 1.8 billion cubic metres of water but that has also been neglected. In addition, the ministry reportedly still has to stop the illegal use of water at 24,000 wells in the region.

"Iran's Lake Oroumiyeh Has Lost 65 Percent of Surface Water", 24/07/2012, online at: http://www.ooskanews.com/daily-water-briefing/irans-lake-oroumiyeh-has-lost-65-percent-surface-water 23544?destination=node%2F23544



❖ Kurdistan Regional Government allocates 8bn IQD for fixing water nets and dry wells

ERBIL, July 26 (AKnews) – The Kurdistan Region's Ministry of Municipality and Tourism has allocated 8bn IQD in an emergency budget to repair water nets and dry wells in the region.

The general director of water and sewerage Sirwan Sahand said the Kurdistan Regional Government expressed in a letter willingness to allocate the money for solving water problems in the region.

Sahand said the Ministry of Municipality approved a draft law to protect water resources and sent it to the Council of Ministers to ratify it. The draft will be sent to the parliament presidency after gaining assent from the Council of Ministers.

Directorate spokesperson Karzan Haidar announced that there are water shortages in some of Erbil's neighborhoods. Many wells receive fewer hours of electricity these days and this makes solving the problem harder.

"Kurdistan Regional Government allocates 8bn IQD for fixing water nets and dry wells",26/07/2012, online at: http://www.aknews.com/en/aknews/3/318812/



❖ The unprecedented heat in Iraq and intensification of water shortage crisis in camp Liberty

Over the past two days the weather has become warmer at Liberty and the temperature has risen extraordinarily to 51 degrees Celsius in shadow. The intensity of heat has caused constant breakdown of the generators in different sections of Liberty. Due to constant power cuts, the residents do not have continuous access to water and sanitary facilities.

Due to dilapidated state of power generators, their engine temperature rises. Thus, either they have to be shut down or the residents have to turn off part of their electric equipments. On Friday, around midnight in Section 5, up to 30% of trailers had to turn off their air-conditioners in order to keep the generator running. For the same reason, Section 3 also was without electricity for several hours yesterday. Living in trailers without air conditioners at 50 degrees Celsius could be lethal.

On the other hand, in order to keep these worn out generators running, a considerable amount of water that is brought to camp daily, is splashed on the generators to cool them down. Each section needs a backup power generator with the power of over one megawatt, so coupled with the current generators, they would be able to function around the clock. However in an inhumane act, the Government of Iraq prevents residents from transferring their 6, one and a half megawatt power generators from Ashraf to Liberty.

In the first day of Ramadan, in order to evade the burning sun, drivers of water tankers resorted to bringing water to the camp from 8 pm to 8 am of the next day. However, because of low pressure or cut off of water between 2:30 am to 4 am, they could not bring adequate water to the camp. A water tanker which would normally take 10 to 15 minutes to fill up, had to spend nearly one hour for filling up.

In another development, the Suppressive Committee of the Prime Minister's Office still refuses to allow residents to bring in vegetable seeds to the camp. Sacks of seeds are being held up by plainclothes agents affiliated with Sadeq at camp's entry checkpoint since July 19. Also yesterday, a pickup truck containing equipment for plumbing work and setting up dish washing facilities was not permitted to enter the Camp. Imposing these restrictions and harassing the contractors would result that many contractors refrain from working for the residents. On June 20, the same plainclothes agents intimidated and turned back one of the contractors who had gone to Liberty to work on a porch plan. As a result, the contractor did not agree to return to Liberty.

In another repressive measure, the Government of Iraq is preventing the transfer of forklifts belonging to the residents from Ashraf to Liberty. In return it claims that it would provide forklifts with Iraqi drivers whenever the residents would need them. Since Thursday, July 19, the residents have been requesting forklifts to move cargos that have arrived from Ashraf, but to this day, they have received no reply for their requests. In the absence of forklifts, the residents are compelled to carry these heavy loads on their hands and shoulders.

"The unprecedented heat in Iraq and intensification of water shortage crisis in camp Liberty", 23/07/2012, online at: http://www.ncr-iran.org/en/news/iran-resistance/12133-the-unprecedented-heat-in-iraq-and-intensification-of-water-shortage-crisis-in-camp-liberty



❖ Israeli Cleantech Firm Wins \$40 Million USD Contract in China

Israel, JERUSALEM — A new Israeli start-up cleantech company, WaterRevive, has just closed a \$40 million USD deal to provide natural water filtration for a landfill in Guangzhou, China.

WaterRevive, which was launched 18 months ago, specializes in constructed wetlands that biologically treat polluted water through water plants and aggregates (stones and various types of algae). It is a chemical-free and environmentally friendly, the company says.

The end consumer of the project is a Chinese governmental company called Grantop, which manages the leachate landfill and garbage disposal in Guangdong.

WaterRevive is designing a system for Grantop that collects water from the landfill, diverts its flow from irrigating and polluting surrounding land, and uses gravity to force it through constructed wetlands to produce water of a quality that can be re-fed to rivers.

"Its ecological footprint is very minor," said WaterRevive marine ecologist Limor Gruber. "It uses no electricity and no residual toxic material like sludge."

The agreement in China was signed with the support of the Israeli Foreign Trade Administration and the Israeli Export Institute. The project will be implemented over a five-year period.

WaterRevive is also in advanced negotiations for a deal with a large real estate firm in China, worth millions of dollars, as well as two projects in Mexico valued at more than \$9 million USD.

It is holding discussions with India over how its technology could aid the Indian government's bid to rehabilitate the Ganges River

"Israeli Cleantech Firm Wins \$40 Million USD Contract in China", 25/07/2012, online at: http://www.ooskanews.com/daily-water-briefing/israeli-cleantech-firm-wins-40-million-usd-contract-china_23550



❖ The Battle for Water - "Good Water Neighbours" collaborate over waters shared by Palestinians, Israelis and Jordanians

Jolting contradictions often seem to deserve each other. Like "opposites attract". That teardrops taste the same whether you produce them laughing or crying. How elections tend toward the politics of fear-mongering versus the politics of hope-building.

Surely one of the most unfathomable contradictions of humanity is that what we call the Holy Land is at once the presumed site of both Armageddon and Redemption. As if Armageddon and Redemption might be part of the same equation.

Or perhaps, as if we can choose between them. It turns out that in fact we can choose.

When it comes to water in this dry land in the Middle East, the choice boils down to either continued competition over water and the resulting pollution, conflict, and unsustainability of our very limited water resources that we see today.

Or, cooperation on water for the benefit – and maybe survival - of everyone in the region.

The demise of water basins shared between Palestinians, Israelis and Jordanians -- the Jordan River, Dead Sea, Mountain and Coastal Aquifers -- reflects shortsighted choices and our forgetfulness that water is essential for the sustenance of all life forms.

When we deal with water resources so recklessly, it is not surprising that we treat both people and nature callously, ignoring water rights and failing to respect access to sufficient, clean water as a most basic universal need and human right.

For more than a decade though, Friends of the Earth Middle East (FoEME) - the only joint Jordanian, Palestinian, and Israeli NGO - has been promoting <u>cooperation and a regional vision</u> for managing water resources.

"PARTNERING MAYORS"

The pioneering methodology of FoEME's "Good Water Neighbors" project identifies cross-border communities and utilises their mutual dependence on shared water resources to develop dialogue and cooperation, both grass-roots and between local leaders, on sustainable water management.

Five sets of 'partnering mayors' have signed memoranda of understanding promoting their jointly identified solutions to specific water problems negatively affecting both communities. These include waste water treatment networks, peace parks, better agricultural practices, and wise water use.



Twenty-eight communities in the region are today involved in the project, and in the last three years more than \$200 million has been leveraged for implementation of these water and sanitation projects.

Why are these neighboring communities choosing to cooperate on water, which is one of the most sensitive – and pressing – issues facing this region which is still immersed in conflict?

Quite simply, there is more to be gained from cooperation, and less to be lost.

Only by dealing with the root causes of our shared waters' mismanagement can we create the effective regional structures which are required to sustainably manage these resources.

The interdependent nature of the water resources in our region, and the severity of their demise, means that trans-national water management cannot remain hostage to lack of progress in the overall peace process.

BUILDING TRUST

Indeed, FoEME's experience has shown that if trust is built around shared water issues, it can then impact positively on other aspects of human relations, toward working cooperatively for common gain.

Local Jordanians, Israelis, and Palestinians are – together - today promoting sustainable water consumption, demanding sanitation solutions and a stop to pollution, supporting more equitable allocations of water between Israelis, Jordanians, and Palestinians, as well as with Nature, and working to rehabilitate the severely depleted and polluted Lower Jordan River and the dying Dead Sea.

Eco-tourism initiatives hold the promise of livelihoods to be gained from cooperative efforts to rehabilitate natural resources – an essential economic inheritance for local communities with diminished water resources for farming.

Many of the water problems in this region are man-made and can be resolved through policy changes.

Redemptive choices can still be made to establish trans-national mechanisms for shared-water management, increasing water allocation to meet Palestinian needs and simultaneously investing in sanitation solutions in the West Bank and Gaza to stop pollution of groundwater and aquifers which threatens the long-term health of the region's main water resources.

National programs need to be developed and launched which promote change in water consumption practices, based on clear targets and financial or other incentives, to encourage wiser use of scarce water resources in the domestic and agricultural sectors.



And perhaps most important in the long-term, public education must help youth and adults understand the shared water reality and visualize a sustainable water future: Cooperation rather than conflict, and hope rather than fear.

water and me is not a contradiction.	vi ater and me are synonymous.

Water and life is not a contradiction. Water and life are synonymous

⁶⁶The Battle for Water - "Good Water Neighbours" collaborate over waters shared by Palestinians, Israelis and Jordanians", 26/07/2012, online at: http://www.trust.org/alertnet/blogs/the-battle-for-water/good-water-neighbours-collaborate-over-waters-shared-by-palestinians-israelis-and-jordanians



❖ South Sudan Signs Economic Agreement With Israel On 'Water, Technology'

Khartoum — South Sudan and Israel signed, in the latter's capital Tel Aviv this week, their first economic cooperation agreement which focuses on development of technology and water infrastructure.

According to the Israeli daily Jerusalem Post, the deal was signed during a ceremony held at the Knesset on 23 July, between South Sudan's visiting minister of water and irrigation, Paul Mayom Akec, and on behalf the Jewish state by Zvika Fox, the vice president of strategy and marketing of Israel's Israel Military Industries Ltd (IMI).

Israel's Energy and Water Ministry said the deal outlined plans for cooperation between the two countries on desalination, irrigation, water transport and purification.

It is not clear, however, why the agreement was not signed with the relevant ministry but with the IMI which is a weapon manufacturer specializing, according to its website, in the production of modern land, air and naval combat systems.

Speaking at the signing ceremony, the South Sudanese minister pointed out that his country is facing tough economic times due to its dispute with neighbouring Sudan on oil exports.

In January this year, land-locked South Sudan shut down its daily oil production of 350,000 barrels, the lifeblood of the economy, following a bitter dispute with Sudan on a fair charge to transfer the commodity through the latter's pipelines.

Mayom complained that Sudan is asking for \$36 US for every barrel of oil going through its territories, a demand he described as "absolutely unprecedented".

The minister however suggested that the new agreement with Israel could potentially allow South Sudan to transfer its oil to Israeli refineries, which his country also lacks.

"This way we will help you solve various problems in your area," he said. "We will be pleased to examine this."

Israel and South Sudan established diplomatic relations in the wake of the latter's secession from Sudan in July last year.

"South Sudan Signs Economic Agreement With Israel On 'Water, Technology'", 26/07/2012, online at: http://allafrica.com/stories/201207271055.html



Israel restricts Jordan Valley water access

Palestinian communities in the Jordan Valley are frequently denied permits to restore old wells or dig new ones.

At a time when the Palestinian Authority is facing a severe financial crisis, a report by the UK-based non-governmental organisation Oxfam International has revealed that Palestinians could generate an extra \$1bn a year by some estimates if Israel removes restrictions on the use of land, water and movement in the Jordan Valley.

"The Jordan Valley... has the potential to be the Palestinian bread basket," the organisation said in the <u>report</u>, *On the Brink: Israeli settlements and their impacts on Palestinians in the Jordan Valley*. "However, the persistent expansion of Israeli settlements and other restrictions on Palestinian development have made life extremely difficult for Palestinian communities."

The Jordan Valley and Dead Sea area holds nearly one-third of the West Bank's land and is home to roughly 60,000 Palestinians. Under the 1993 Oslo Accords, which delegated various degrees of autonomy to the Palestinian Authority (PA) around built up and urban areas, Israel retained full civil and military control over 60 per cent of the West Bank. This is now known as Area "C". Some 87 per cent of the Jordan Valley lies within this classification. Area "A" is defined as under full PA control and Area B is under Israeli military control; the PA here is in charge of civilian affairs. These designations have effectively divided the West Bank into three main non-contiguous areas.

Permits denied

Palestinian residents of the Jordan Valley are mainly farmers or Bedouins, mostly living in enclaves hemmed in by closed Israeli military zones, checkpoints and more than 30 Israeli settlements. Their movement is severely hindered by a stringent permit system and by "live fire" zones. Here, the Israeli military sometimes carries out training exercises in close proximity to Palestinian communities - and even inside population centres and villages.

This was the case in Al Aqaba, a herding and agricultural community located on the Western edge of the Jordan Valley. Before 1967, around 2,000 Palestinians lived in this small village. There are fewer than 300 inhabitants today, after Israeli authorities created three military camps on its outskirts, and began military "training exercises" - using live ammunition - often within the village itself.

Paralysed from the waist down after he was shot by Israeli soldiers, Al Aqaba's mayor, Haj Sami Sadeq, led a campaign for years against these operations in order to sustain the existence of the village.

In 2001, the Israeli High Court ruled that Israeli soldiers must stop using Al Aqaba's land for training exercises, and remove one of their military camps located at the entrance of the village.

But Mayor Sadeq said this wasn't enough. "The village is constantly under the threat of extinction. Its land is constantly being confiscated, its homes demolished, its crops burned and there is often little access to water," he said.



In 2003, Israeli authorities began issuing demolition orders against most of Al Aqaba, including the nursery school, medical centre, mosque and nearly all the homes. The village council turned once more to the Israeli High Court, which upheld the orders, saying the buildings - owned and built by Palestinians on Palestinian land, albeit within "Area C" - had been constructed without permits issued by Israeli officials.

According to Sadeq, the village had submitted several "master plans" to Israeli authorities to get these permits, one of which dates back to 1998. "The Civil Administration rejected the [latest] master plan a few days ago, and gave five more families in Al Aqaba demolition petitions," he said.

Permits are rarely given to Palestinians, even for structures such as tents and water containers. Because of this restrictive planning system, most Palestinians are forced to build without a permit, knowing that their structures might be demolished at any time.

The UN Office for the Coordination of Humanitarian Affairs (OCHA) documented that, in 2011, Israeli authorities demolished 200 Palestinian structures in the area, including water tanks and homes made out of metal and plastic sheets, displacing 430 people and affecting the livelihoods of 1,200 others.

Israel's systemic policy

According to OCHA, 90 per cent of demolitions occur in agricultural and pastoral communities in Area C. Khalil Tafakji, director of the Mapping and GIS Department at the Jerusalem-based Arab Studies Society, said: "Israel's goal is [to] use the Jordan Valley as a way to control Palestinian space." He cites several methods of "control", including designating areas as closed military zones, nature reserves and settlements.

"Palestinians need a strategic plan to safeguard the area, similar to the one we have for Jerusalem. We need to make the Jordan Valley a national priority," Tafakji said.

UN agencies and Israeli human rights groups have concluded in several reports that Israel has imposed a policy designed to restrict the development of the Palestinian communities in the area.

According to Israeli human rights group, <u>BIMKOM: Planners for Planning Rights</u>: "The restrictive Israeli planning policy is a central tool in the ongoing struggle for control of land and the [Israeli] Civil Administration's attempt to secure large reserves of land for Israeli interests, primarily for the settlements."

In the meantime, settlement activity has continued unabated, rising by 20 per cent in 2011 across the West Bank as compared with 2010, according to Oxfam. In the same period, the number of Palestinians displaced by demolitions reportedly doubled, with 60 per cent of these demolitions carried out in areas close to settlements.

Control of water sources



The Jordan Valley is home to some of the most fertile land in all of the occupied territories and Israel itself. Arable farming is deemed a lifeline for many rural Palestinian communities, yet Israel controls most water sources in the area, and 28 of its 42 drillings in the area in the Jordan Valley, according to B'Tselem.

Palestinians in the Jordan Valley have very little access to water, living on 10-20 litres a day, far less than the 100 litres recommended by the World Health Organisation. In comparison, residents of Britain use around 150 litres a day, according to the <u>UK Environment Agency</u>.

The situation is far worse for those not connected to a formal water system, such as <u>Bedouin communities</u>, who are forced to buy bottled or tanked water at inflated prices. According to OCHA, families living on tanked water pay up to 400 per cent more for every litre than those connected to a water network.

In contrast, the 9,500 Israeli settlers living in the Jordan Valley and Dead Sea area use roughly 300 litres per person per day, according to OCHA. This is more water per capita than the average household inside Israel is allocated, B'Tselem said: "The generous [water] allocation to the settlements has enabled [settlers] to develop intensive agriculture that operates year round."

Palestinian communities in the Jordan Valley are frequently denied permits to restore old wells or dig new ones, while Israeli authorities also often destroy water cisterns and confiscate tanks. The latest incident occurred last month in Ein El Hilweh, a Jordan Valley pastoral community whose <u>water storage tanks were confiscated</u>.

B'Tselem estimates that the Palestinians have access to 89 wells in the area, down from 209 before 1967. "The reduction in the amount of water accessible to Palestinians [has] led to a decline in the amount of land cultivated by Palestinian and to a drop in competitiveness of the crops they grow," the Israeli group said.

Israel under pressure

Earlier this week, Israel responded to OCHA's ongoing work in the Jordan Valley and Area C by threatening sanctions against the organisation and formally asking for <u>clarifications on its mandate</u>. Israel is accusing the UN agency of supporting "unauthorised building" by Palestinians in Area C.

Oxfam called upon the European Union and its member states to pressure Israel to "end the construction of illegal settlements and [to] comply with its responsibilities under international law".

The recommendation followed a statement made by EU foreign ministers, who called upon Israel to alleviate living conditions of Palestinians living in Area C, "by accelerated approval of Palestinian master plans, halting forced transfer of population and demolition of Palestinian housing and infrastructure, simplifying administrative procedures to obtain building permits, ensuring access to water and addressing humanitarian needs".

Israel has repeatedly said that the Jordan Valley is essential to its long-term security. <u>In March 2012</u>, Binyamin Netanyahu said Israel would never withdraw from the Jordan Valley under any future



peace agreement signed with the Palestinians. He said the strategic importance of the area along the eastern border of the West Bank prevented Israel from doing so.

In February, the Israeli Foreign Minister Avigdor Lieberman was quoted by the <u>Jerusalem Post</u> as saying: "We cannot secure the state of Israel without maintaining control of the Jordan Valley."

Many Israeli leaders often cite Yigal Allon, a former Israeli general and deputy prime minister, who, in 1967, <u>outlined a plan</u> to control the Jordan Valley in order to act as a buffer area between Israel and its neighbours.

Yet some Israeli experts say that in the age of long-range missiles, securing a specific geographic area may not be as relevant as it was years ago. Hebrew University political science professor Yaron Ezrahi said Netanyahu was probably aware of this, "but he won't say it because it would weaken his land-grabbing policy".

However, "Players like al-Qaeda work by infiltration and terror. And here, borders are important, because we see instability in Jordan. We see demonstrations there and the king is facing some troubles. Instability creates questions about borders."

Meanwhile, Mayor Sadeq and the residents of Al Aqaba are still entangled in legal battles that will determine the future of their village. Home demolitions in the Jordan Valley continue at a record pace while Israeli settlements continue to expand, taking control of water and land resources.

"Israel restricts Jordan Valley water Access", 28/07/2012, online at: http://www.aljazeera.com/indepth/features/2012/07/20127259518330800.html



❖ Israel to Return 150 Million Cubic Meters of Water to Jordan River

Israel will rehabilitate the Jordan River by returning 150 million cubic meters of water there per year, *Reuters* reported.

"That way in 10 years, we will erase our debt [to nature]," Israeli Energy and Water Minister Uzi Landau said.

The biblical river currently contains just "five percent of what once flowed," according to Ben Ari, one of the rehabilitation project's leaders.

Jordan River revival comes as Israel continues to bolster is water infrastructure. The country currently re-uses 75 percent of its wastewater, and by next year 85 percent of its drinking water is expected to come from desalination plants.

"Israel to Return 150 Million Cubic Meters of Water to Jordan River", 23/07/2012, online at: http://www.algemeiner.com/2012/07/23/israel-to-return-150-million-cubic-meters-of-water-to-jordan-river/



❖ Israel Water Minister Promotes Major River Recovery Program

Israel, JERUSALEM — Israeli Minister of Energy and Water Resources Dr. Uzi Landau and local NGO the Society for the Protection of Nature Israel (SPNI) are currently holding a series of engagements throughout the country to promote Israel's plans to repay its "water debt to nature."

The collaboration between the two parties follows Landau's announcement of an extensive recovery program for Israel's rivers during the ministry's third annual conference for green growth in late June, a project SPNI has advocated for years.

Israel intends to release 1.5-2 billion cubic meters of water to its rivers during the next 10 years in order to replenish them.

Israel's overuse of freshwater sources during drought years resulted in a depleted Sea of Galilee (Lake Kinneret) and its tributaries, said Landau.

"We are determined to get Israel's rivers out of the crisis that they are in. If the Sea of Galilee can be likened to the heart of the water economy, then rivers are the arteries. We want to see them flowing. And we shall do what it takes to make it happen," he said.

In what Landau classified as an "indicator of intentions," Israel allocated 15 million cubic meters of potable water to its rivers in 2011. In 2012, it has allocated 23 million cubic meters of potable water and 6 million cubic meters of salty water.

The plan for restoring Israel's rivers is expressed in the country's water master plan.

"In two years' time, we can start repaying our debt to nature in much greater quantities. We intend to return to nature on average approximately 150 million cubic meters per year, so that in 10 years' time, we can strike the debt," said Landau.

The ministry has reclassified "nature" as a water consumer along with agriculture, domestic and industrial use.



Israel's emergence from its water crisis is attributed not to an above average rainfall in 2012, but to its extensive desalination program, which currently produces about 500 million cubic meters of water a year, a figure expected to double within a decade, enabling Israel to rehabilitate its fresh water reservoirs.

SPNI spokesperson Drew Alyeshmerni said although desalination had its problems, it was one way to restore Israel's depleted aquifers.

"It is allowing nature to replenish itself. Now there's a window of opportunity to work on the rivers, and we have to take it."

"Israel Water Minister Promotes Major River Recovery Program", 26/07/2012 online at: http://www.ooskanews.com/daily-water-briefing/israel-water-minister-promotes-major-river-recovery-program_23577



Experimental pumping from Disi project scheduled to start this year'

AMMAN — Experimental pumping from the Disi Water Conveyance Project is scheduled to start later this year, as the mega-scheme nears completion, a government official said on Wednesday.

The project, viewed as the Kingdom's first step towards achieving water security, is progressing well and is currently in its final stages, Disi Project Director Bassam Saleh said.

"Work on the project is going at an excellent pace, with 85 per cent of the project completed," Saleh told The Jordan Times during an interview.

Experimental pumping from the Disi project is scheduled to start in October or November this year, he noted.

"We expect that 20-30 million cubic metres of Disi water will be pumped to Amman by February next year... The project will be completed in July 2013," Saleh underscored.

The Disi project, which started in 2007, entails drilling 64 wells, 55 of which will be used for the generation of water, while nine will serve as piezometer wells to measure the elevation of water.

Being carried out on a build-operate-transfer basis and implemented by Turkish company GAMA, the Disi project seeks to provide the capital with 110 million cubic metres of water annually via pipeline, which starts at the ancient Disi aquifer in southern Jordan and ends in Amman, passing through several water stations in Maan, Tafileh, Karak and Madaba.

"Twenty-five wells have been drilled and 314 out of a total of 340 kilometres of pipelines have been laid. In addition, water reservoirs and pumping stations have been established, while engineering designs and procurement were completed," Saleh highlighted.

Minister of Water and Irrigation Mohammad Najjar said in recent statements to the press that water supply in Amman and Zarqa will be improved once the Disi project is completed.

People will start receiving continuous water supply instead of once every week under the water distribution programme, Najjar said.



Under the 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.

"Experimental pumping from Disi project scheduled to start this year" Jordan Times, 26/07/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=5502



Agricultural waste to be recycled

Environmental Protection Ministry updates recycling regulations to include thousands of tons of plastic waste used in agriculture industry

The recycling revolution led by the Environmental Protection Ministry is about to hit the agriculture industry for the first time. The ministry announced that an amendment is to legislate the recycling of thousands of tons of plastic used in agriculture.

According to the ministry's data, over 15,000 tons of plastic are used in Israeli agriculture – in irrigation systems, hothouses, and nets – most of which, around 3,000 tons a year, is tossed in open areas and causes environmental damages, such as fire hazards, contaminating soil and water, and attracting pests.

Innovation

Israeli 'green game' idea wins int'l award / Billie Frenkel

Israeli's concept for cell-phone game encouraging recycling of plastic waste wins brainstorming contest

Full story

Another agricultural problem is that of trimmed foliage, which is in risk of becoming a fire hazard that can cause air pollution and diseases.

"unorganized care of trimmed foliage may lead to the spread of diseases and pests onto crops, which brings about an increased use in pesticides, causes smell hazards and is dangerous in case of fire," ministry officials state.

The Environmental Protection Ministry plans to establish a recycling policy by which trimmed foliage will be compressed and used to cover the soil to decrease the vaporization of water from the ground and enhance growth.

The ministry states that this is a first attempt to address the issue of agricultural waste in Israel, in line with the recycling revolution that the ministry is trying to establish. "Recycling has entered all industries," said Environmental Protection Minister Gilad Erdan. "In addition to economic and environmental benefits, agricultural recycling can help prevent fire hazards, the spreading of diseases, and of smells."

"Agricultural waste to be recycled", YNET, 26/07/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=5522



❖ Water diversion newest flashpoint in Middle East

BEIRUT, Lebanon – Israel has expressed concern over a Lebanese plan to divert some water from the Hasbani River in south Lebanon. The river also flows into Israel, even though it represents a small percentage allotted under the so-called Johnson Plan which addressed previous water diversion disputes between both countries and Jordan, according to a report from Joseph Farah's G2 Bulletin. Based on Israeli reactions to previous water diversions in Lebanon, this latest episode could ignite an already-tense border climate that has included past threats. One Israeli official warned that the project has become a "strategic problem."

The Hasbani River is one of three tributaries of the River Jordan which flows into the Sea of Galilee, said to be Israel's largest reserve of fresh water.

Some observers suggest that Israel is overreacting to the latest Lebanese intention to divert some of the water for a tourism project and to irrigate some farm lands in Lebanon.

In the past, Israel has complained of other water diversions, and the issue brought it to the brink of a shooting war with Lebanon.

This was the case in 2001 and again in 2002 when water was diverted in Lebanon to provide drinking water to villages in the south that would not have water otherwise. In both cases, Israel's reaction was immediate, with then-Israeli Prime Minister Ariel Sharon declaring the projects a "causus belli," or case for war.

Over the latest project, the Israelis are concerned that the tourist site could be used as a cover to launch attacks against Israel, since it is in south Lebanon near the United Nations-mandated Blue Line border with Israel.

Regional observers say that the "overstated threats" from Israel over what is perceived to be a minor water pumping project for tourism and farming suggest just how tense events have become in the area.

"Water diversion newest flashpoint in Middle East", 22/07/2012, online at:

http://billsblogabout.blogspot.com/2012/07/water-diversion-newest-flashpoint-in.html

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❖ Power still out at water ministry

AMMAN — The Ministry of Water and Irrigation's headquarters in Shmeisani remained without power on Wednesday for the second day in a row, after the National Electric Power Company (NEPCO) cut off electricity due to unpaid bills.

The ministry's offices and corridors were dark and the usually bustling customers' services hall at the Water Authority of Jordan was empty.

"We powered electricity generators to keep a few main offices and vital systems running, but we are unable to complete work as we should," a source at the ministry told The Jordan Times.

NEPCO cut off electricity from the premises on Tuesday morning just as employees were entering their offices because the ministry had failed to pay over JD7 million in dues.

"Negotiations are under way to accelerate providing the ministry with the loan it requested from the Social Security Corporation (SSC) to pay its dues to NEPCO and other institutions," underscored the source, who asked not to be named.

Minister of Water and Irrigation Mohammad Najjar said in statements to the press last month that the ministry had asked the SSC for a JD50 million loan to pay its dues to NEPCO, the Jordan Petroleum Refinery Company, contractors, suppliers and consultants.

A source at the SSC said on Tuesday that the loan had been approved last month but was still being processed.

The power outage has affected the ministry's performance, the source highlighted.

"We are unable to contact our departments across the governorates and the ministry's call centre, established to receive water complaints, is not operational," the source said.

An operator at the call centre said that the power cut was preventing the centre from directing water complaints to the concerned departments for follow-up.

"We are receiving phone calls from people complaining about water cuts, but we are unable to send them to the concerned person to solve the problem," the operator told The Jordan Times.

"Power still out at water ministry", Jordan Times, 26/07/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=5524



❖ Israeli Researchers: Gray Water is Safe for Use

Scientists from the <u>Technion</u> Israel Institute of Technology and Ben-Gurion University of the Negev have proven that gray water is in fact safe for household use. The results came from a comprehensive project to study the re-use of water that appears gray, which is generated by laundry, dishwashing and bathing in homes.

The Israeli researchers say that this water can be used for gardening, an approximated 100-120 liters per day currently consumed per household. Due to the efficiency of gray water purification systems, which are in use in 10,000 households already, people should use gray water rather than dispose of it, they said.

The study examined the clarity, concentrations of bacteria and quantity of solids found in the water after being stored and combined with disinfectants, chlorine and UV light.

But the Health Ministry is far from convinced, and refuses to change its stance on using gray water in homes. The ministry has said it would like to conduct more research on the health risks that come from recycling this water.

"The researchers accepted the proposal and we will continue discussing the subject," the ministry said.

The Health Ministry currently uses gray water recycling systems in public buildings, including in the sports center in Shoham.

Prof. **Amit Gross** of Ben-Gurion's Zuckerberg Institute for Water Research conducted the two-year study with Prof. **Eran Friedler** of the Faculty of Civil and Environmental Engineering at the Technion. **Maccabi Carasso**, the businessman who founded the Coalition for Gray Water Recycling in Israel, funded it.

<u>Danielle Chazen</u> is a regular contributor to Jspace's technology division. Danielle is a freelance reporter and technology event coordinator with a degree in journalism from the University of Maryland.

"Israeli Researchers: Gray Water is Safe for Use", 23/07/2012, online at: http://www.jspace.com/news/articles/israeli-researchers-gray-water-is-safe-for-use/9953



❖ Israel signs 1st agreement, on water, with S. Sudan

"We see this as privilege to be first [sector in Israel] to sign agreement with new state," Energy, Water Minister Uzi Landau.

In the first official agreement between Israel and South Sudan, Israel Military Industries Ltd. signed a pact to cooperate on water infrastructure and technology development during a ceremony at the Knesset on Monday.

"We see this as a privilege to be the first [sector in Israel] to sign an agreement with the new state," Energy and Water Minister Uzi Landau said in a statement aimed at Akec Paul Mayom, water and irrigation minister of South Sudan.

"We will continue to do everything possible in order to assist you. You are among friends."

Zvika Fox, IMI's vice president of strategy and marketing, signed the framework agreement on behalf of Israel. The agreement outlined plans for cooperation between the two countries on desalination, irrigation, water transport and purification, according to the Energy and Water Ministry.

The meeting took place in a warm and friendly atmosphere, with an opening address by Landau, who said he admired "the spirit of freedom and adherence to an idea" of the people of South Sudan.

"I am very pleased and excited to meet the people of this wonderful state," he said. "It is not hard to feel a sense of togetherness, as well as to notice the great similarities between the people of both countries."

Both peoples, Landau said, have had to stand up for their existence, and Israel has much to pass on to South Sudan.

"The lessons from the stories of our people are similar," he added. "We have experienced... inhumanity. Our duty is to ensure that this does not happen again."

The minister stressed that Israel had "much knowledge and much to contribute" from its experience regarding water and said he felt this was "the beginning of fruitful cooperation."

Mayom told Landau that his country has been facing particularly difficult times in the economic sphere, as Khartoum has been disrupting South Sudan's oil exports.

"Sudan asks us for \$36 on every barrel of oil going through its territory, while other countries throughout Africa demand tens of cents only," Mayom said. "This is absolutely unprecedented. Our economy is sinking.

We have no other resource by which to rebuild our economy."



Citing the lack of oil refineries in South Sudan, Landau suggested that in the framework of bilateral cooperation the county transfer its oil to Israeli facilities.

"This way we will help you solve various problems in your area," he said. "We will be pleased to examine this."

"Israel signs 1st agreement, on water, with S. Sudan", 24/07/2012, online at: http://www.jpost.com/Sci-Tech/Article.aspx?id=278657



❖ Israeli businessman aims to make desert bloom in South Sudan with kibbutz-style farming

Over the past few months, Miki Mann has been promoting the cooperative farming model that would serve to absorb migrants deported from Israel.

When Israeli businessman Miki Mann offered the brand-new government of South Sudan to build kibbutz-style communities in the new country, it refused. "They told me that in South Sudan there is a value of private ownership of land," he said. But they soon found a compromise.

The South Sudanese may have ruled out the kibbutz model, but they've agreed to a cooperative one. "The cooperation is in the agricultural knowledge and equipment, but not in land ownership," explained Mann. "Kibbutz - no; cooperative work - yes." Over the past few months, Mann has been promoting the cooperative farming model that would serve to absorb migrants deported from Israel. The South Sudan government has agreed to participate in the project and the World Bank has agreed to take on part of the development, if the governments of South Sudan and Israel fund the project.

But the dream of making the desert bloom in South Sudan is not an easy one. Mann's attempts to get Israeli aid have been unsuccessful so far, possibly owing to fears of setting the precedent of taking responsibility for deportees after they leave Israel. Neither Agriculture Minister Orit Noked nor Deputy Foreign Minister Daniel Ayalon have responded seriously to the plan, Mann said.

The Agriculture Ministry has said it is examining the proposal. Ayalon did not comment for this report.

The South Sudan government has already agreed to provide 100 dunams (25 acres) of land for the project the next five years, near the capital city of Juba. The South Sudanese are already examining the possibility of establishing such cooperative farms elsewhere in the country, without any connection to the migrants repatriated from Israel.

The basic idea is simple: Every South Sudanese who is deported from Israel would receive a plot of land, for which they would be personally responsible. The cooperative would receive tools, seeds, fertilizer, irrigation equipment, pesticides and herbicides. Each cooperative would receive the services of an agronomist sent by Israel to accompany and assist the community's progress. The local farmers would grow corn, peanuts and various grains and would sell their harvest to the cooperative. The farmers would then be paid after the cooperative's expenses in supporting them are deducted.

The hope is that the new farmers would use their profit to pay for health services and education, buy food and improve their quality of life. Farmers who want to exploit their new knowledge and experience would be able to move to other farmland, helping spread their knowledge around the country.

"The cooperative is the best and fastest way to start something from nothing," said Mann.



Mann, 59, is from Binyamina. He is a mechanical engineer by profession, and has worked as a technological adviser to companies in recent years. When South Sudan was founded as an independent state just a year ago, Mann offered his services to the new government as an adviser on infrastructure and was invited to Juba.

South Sudan imports a large amount of its food from neighboring African countries, said Mann. Agriculture there is based on production for local consumption, by families or tribes. The government's natural preference is to continue to base local agriculture on manual labor. "There is no shortage of workers, and therefore the emphasis has to be on investing in knowledge, methods and supplies - and not necessarily on mechanization," he said. "It is not like in the Western world, where they are asking to replace men with machines."

"Israeli businessman aims to make desert bloom in South Sudan with kibbutz-style farming", 27/07/2012, online at: http://www.haaretz.com/news/national/israeli-businessman-aims-to-make-desert-bloom-in-south-sudan-with-kibbutz-style-farming-1.453924



Egypt Water Shortage Protests Are Widespread and Violent

CAIRO, Egypt — On the day that Egypt President Mohammed Morsi appointed former Minister of Water Resources and Irrigation Hisham Kandil as the country's new Prime Minister, OOSKAnews can report that residents of seven Egyptian governorates have taken to the streets in the past few days to protest severe shortages of drinking and irrigation water throughout the country.

The protests have turned violent in some areas.

In Beni Sueif governorate, one farmer was killed and many more people were injured during a conflict over irrigation water.

Protesters in Menoufiya blocked highways as part of their demonstration against the steadily decreasing amount of irrigation water over the past couple of months. Crops have died off on hundreds of hectares of land as a result.

In Minya, local villagers angry about water shortages and water pollution clashed with irrigation officials.

Some 40,000 cubic liters of industrial wastewater is dumped into the Nile River in the area each day.

In Fayyoum, hundreds of people protesting water deficits blocked off a highway and set fire to tires.

Hundreds more gathered in Qalioubiya, in the Nile Delta region, to demand that new treatment plants be built to solve the chronic water problems there.

Water officials have promised to connect affected areas in the governorate to treatment plants in neighboring cities.

Protests erupted in Gharbiya and North Sinai provinces after drinking water supply began deteriorating in recent weeks.

The Egyptian government is trying to get foreign funding for irrigation improvement projects that will partly address the problems.



The government also launched a national plan to renovate and replace old irrigation facilities.

German development bank (KfW) earlier this year extended a soft loan of \$100 million USD to finance the Integrated Irrigation Improvement Project. The project aims to improve irrigation on around 83,000 hectares of agricultural land in the Delta governorates of Gharbiya, Kafr al Sheikh and Beheira.

And the Saudi Fund for Development (SFD) last week allocated \$80 million USD for a variety of projects to renovate or replace old irrigation and wastewater pumping stations nationwide.

"Egypt Water Shortage Protests Are Widespread and Violent", 25/07/2012,online at: http://www.ooskanews.com/daily-water-briefing/egypt-water-shortage-protests-are-widespread-and-violent_23549



Egypt's Mursi Appoints Water Minister to Form New Cabinet

Egyptian President Mohamed Mursi named the little-known Irrigation and Water Resources Minister Hisham Qandil as prime minister, state media reported.

Qandil was asked to form the government in the very near future, the Middle East News Agency said, citing Mursi spokesman Yasser Ali. Qandil "is an independent, nationalist figure who does not belong to any political group, either before the January 25 revolution or after it," Ali said.

Mursi, Egypt's first elected civilian leader, had pledged to appoint a premier from outside his own political group, the Muslim Brotherhood. The president is seeking to ease political tensions and revive an economy still struggling a year and a half after the uprising against Hosni Mubarak.

"Ninety-nine percent of Egyptians probably never heard of him before," Shadi Hamid, director of research at Brookings Doha Center, said of Qandil in a phone interview. "That is both an advantage and disadvantage for Mursi, but I think most people were expecting someone with more stature and a bigger profile, someone who can shake Egyptian politics up."

Egypt's benchmark EGX 30 Index of stocks extended its decline to 1 percent at 1:30 p.m. in Cairo. The yield on the country's 5.75 percent dollar bonds due 2020 was little changed at 6.62 percent.

'Economic Background'

The U.S.-educated Qandil, who was said by the independent Al-Masry Al-Youm newspaper to be 49, wasn't among the top names circulated in the Egyptian media over the past three weeks as potential prime ministers. Those candidates were largely drawn from financial backgrounds, including the current and former heads of the central bank and former finance ministers.

"The market had hoped that the prime minister would have an economic background to implement the reforms needed to get the Egyptian economy back on track," Anthony Simond, a London-based emerging-markets analyst at Aberdeen Asset Management Plc., said by phone. "It doesn't appear that he has this experience."



In an interview on August 9 with Al Jazeerah Misr television, Qandil said he's not affiliated with any Islamist groups and identified himself as "a moderate."

Before he was appointed to the Cabinet under Essam Sharaf, who took over as premier in March last year after Mubarak's ouster, Qandil served as a water resources expert at the African Development Bank, according to a biography posted on the Freedom & Justice Party's Facebook page. He took part in talks on sharing the Nile's waters and was a member of a joint Egyptian- Sudanese Nile waters authority, according to MENA.

His selection by Mursi is a "surprise, and goes back to the era of technocratic prime ministers," Ayman Nour, an opposition politician who challenged Mubarak for the presidency in 2005, wrote on his Twitter account.

"Egypt's Mursi Appoints Water Minister to Form New Cabinet", 24/07/2012, online at: http://www.businessweek.com/news/2012-07-24/egypt-s-mursi-appoints-water-minister-to-form-new-cabinet



Searching for water: Residents of Giza district protest unstable supply

The baby word "imbou," said to have been Arabicized from the language of ancient Egypt, is used by kids who want to drink. Today, with the frequent water cuts, the same word is used by grown-ups.

In front of the Giza Governorate headquarters, dozens of residents from Saft al-Laban — one of the largest neighborhoods in the city, with close to a half million residents — set up a tent under a banner reading "Imbou." They have been staging a sit-in since Saturday after water supplies to their homes had been cut off for more than a week.

Saft al-Laban is one of 11 districts in Giza, which has a total population of 7 million. Protesters say their neighborhood is the only one that has suffered from an unstable water supply over the past six years, compared to other districts in Giza.

This protest is novel because all former protests staged by residents of Saft al-Laban after the 25 January revolution were either to demand permanent contracts in government institutions or to receive apartments and compensation for violence that erupted during the transitional period after the breakout of the uprising.

President Mohamed Morsy's plan for the first 100 days of his rule includes promises to address issues related to traffic, fuel, security, bread and sanitation. It seems, however, that water cuts will be another urgent issue to feature prominently on his first 100-day agenda, particularly since protests against the scarcity of water recently erupted in eastern Cairo, Alexandria, Daqahlia, Gharbiya and Fayoum.

Protesters say the solution to the problem is simple but needs years of work. On the ground, however, there is a lack of trust, mutual recrimination between residents and government officials, and corruption at the municipal level.

One of the protesters, 37-year-old Ahmed Ali, says Morsy's platform lacked any solutions to the problems of densely populated areas, which he said are mostly technical issues related to infrastructure and facilities.

www.ORSAM.org.TR



"The problem of water shortages was exacerbated over the past six years, prompting people to dig for

underground water. Water was only available 12 hours a day, pumped from secondary pipes

connected to the main pumping station in Warraq, located at the heart of Giza," he says.

Ali added that the lack of radical solutions led to more hours without water, until water became

almost entirely out of supply since last year.

"We have since depended on underground water or other nearby neighborhoods to satisfy our needs

of water," Ali says.

Another protester, Medhat Maher, 37, says there are two solutions to the water shortage problem. The

first is to complete the water reservoir, which was supposed to have been in use three years ago. The

second, a more permanent solution, is to pump the water directly from the main pumping station in

Warraq.

The protesters accuse Giza Governorate of intentionally delaying the construction of the reservoir,

which they attribute to internal corruption within the bureaucracy. The idea of building the reservoir

came up six years ago, when the water crisis erupted, but its construction only started three years ago

and was never completed.

Giza Governor Ali Abdel Rahman accused Saft al-Laban residents of hampering the construction of

the reservoir.

In a statement issued on the governorate's website Sunday, Abdel Rahman said the governorate had

to change the design of the reservoir after residents illegally annexed the land allocated to it.

Abdel Rahman has promised to finish the construction of the reservoir within six days of his

statement.

"We do not trust the governor — he is the engineer contracted to make the original design for the

reservoir six years ago who is now accusing us of annexing the land," says Maher, suggesting that

there is a conflict of interest.

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Maher adds that building a main pumping line that extends from Warraq to Saft al-Laban would have its own set of problems, even though it is the only solution to water cuts. Saft al-Laban's water quota

was distributed to other districts by employees from the Holding Company for Water and Wastewater

who controlled the valves in the Warraq station.

"After investigations, we found out a few months ago that two workers from the [company] in Giza

controlled the pumping of water and allocated more water to neighborhoods next to Saft al-Laban —

such as Motamadeya, Kafr Tohormos and Saft al-Laban al-Gadida — which have taller buildings and

shops that need a continuous flow of water," says Ali.

He says he can "almost conclusively" say these employees have a direct interest in making this

change.

"It appears the problem is not technical. Last year, we blocked the ring road to protest the little

supply of water, only to find water being pumped strongly into our homes hours later," he adds.

The protesters say these are signs of corruption, calling on Morsy to make a plan to address their

problem and to change involved state employees. They believe that the corrupt networks of interest

permeating some of the state's executive bodies will make the president's mission difficult.

"We will continue our protest because suspending it will cause Mubarak's regime to return, though

under the leadership of a new president," says Ali.

 $\hbox{``Searching for water: Residents of Giza district protest unstable supply", Egypt Independent, 26/07/2012, online at: \\$

http://mideastenvironment.apps01.yorku.ca/?p=5507

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The Battle for Water - Assessing the Nile's flow a tricky task for Egypt

At around 6000 km in length, the Nile is the longest river in the world. It represents a crucial source of freshwater for the 11 Nile riparian countries and it provides most of the freshwater available to Egypt.

Given this dependence it isn't surprising that Egypt is particularly interested in understanding the future of the river. Dealing with the variability of Nile flow has been a constant theme throughout the long history of the country and some sort of resilience is part of the cultural inheritance of modern Egyptians.

At the same time, the recent demographic changes and the likely future growth in population will provide extra challenges for this North African country. Understanding how much water will flow in the river in future decades is one of main concerns of the Ministry of Water Resources and Irrigation (MWRI) in Cairo.

The construction of the high Aswan dam in the 1960s (which has been filling up until 1976) significantly changed the way water resources are dealt with in Egypt. The river can now be considered fully managed downstream of the dam. This means that most of the questions about future runoff can be basically mapped onto the expected inflow into Lake Nasser, the artificial basin crated by the Aswan dam.

The Danish Hydrological Institute (DHI), Met Office Hadley Centre and MWRI have worked together to better understand how climate change could affect the region and in particular its water resources. The project, funded by the Spanish Millennium Development Goal and managed by the UN through UNDP, provided a unique opportunity to put together crucial expertise on local environment, hydrological processes and climate change.

CLIMATE CHANGE CHALLENGE



Although a number of studies have looked at how climate change may affect Nile river runoff, the task has proven to be challenging. The flow of the river appears to be very small when compared to the huge catchment the river drains.

The observed runoff effectively represents a fine balance between huge forces of nature. The tropical precipitation that falls on the highlands of western Ethiopia provides most of the water of the main Nile north of Khartoum and is effectively counterbalanced by the large evaporation that occurs in the desert.

This translates into a very non-linear response to change in rainfall occurring on the Ethiopian highlands. Sensitivity studies conducted by scientists at MWRI in Cairo have shown how sensitive the Nile runoff is to changes in precipitation along the Blue Nile catchment.

In the dry season, most of the water in the main Nile is supplied by the White Nile which comes from Lake Victoria, while the Blue Nile and Atbara river, which together drain most of the west Ethiopian plateau, account for as much as 90% of the flow of the main Nile in flood conditions.

Given the limited multi-annual variability of the White Nile flow compared to that of the Ethiopian river, the latter is usually considered the most important subcomponent of the Nile basin as far as the water resources of Egypt are concerned.

While most of the previous studies in the region used Global Climate Model (GCM) models to assess how climate change may affect Nile runoff, simulations of regional climate models were used in this project. These are effectively high-resolution versions of the global model that are able to capture some of the local climate forcing not 'visible' at the GCM scale.

LOCAL LEVEL IMPACTS

For the project five different simulations of Met Office global model were downscaled using the Met Office regional climate model, PRECIS. These were chosen from a larger ensemble of 17 simulations on the basis of their ability to reproduce some of the key features of the regional climate such as the African Monsoon or the seasonal cycle of temperature in the Nile basin.



MWRI used the outputs of these simulations to generate synthetic time series of precipitation and temperature for future decades. These time series were then used as input in the Nile Forecast System, the operational model used at MWRI for planning and assessing future changes in the runoff. The results suggest that a small increase in the river runoff for the 2050s appears to be more likely than a decline.

The management of water in a cross-boundary basin is a challenging exercise. It is important that decisions are informed by the best available scientific evidence. This is one of the reasons why DHI and Met Office are currently involved in a follow-up project involving not only Egypt but all the riparian countries via the Nile Basin Initiative.

"The Battle for Water - Assessing the Nile's flow a tricky task for Egypt",24/07/2012, online at: http://www.trust.org/alertnet/blogs/the-battle-for-water/assessing-the-niles-flow-a-tricky-task-for-egypt



❖ UfM approves project to improve water governance in the Mediterranean

Senior Officials from the 43 country members of the Union for the Mediterranean (UfM) recently approved a project entitled "Overcoming governance challenges to the mobilisation of financing for the Mediterranean water sector", aimed to identify and provide solutions to the lack of basic elements for a sound governance framework for the mobilisation of financing for the water sector in many Mediterranean countries, including absorption capacity at both national and local levels.

Lebanon, Tunisia, Jordan, Albania and Palestine are participating in the first phase of this project with an overall budget of €2 million. The project has the financial support of the European Investment Bank. The promoters and the UfM Secretariat will mobilise other donors for the remaining financing needs.

The project, to run over three years, is promoted jointly by the Organisation for Economic Cooperation and Development (OECD) and the Global Water Partnership- Mediterranean (GWP-Med), and will build on earlier work jointly carried out by the GWP-Med and the OECD in Egypt (completed), Lebanon (completed) and Tunisia (in progress).

The project will focus on assessing the opportunities and institutional and regulatory challenges arising from public-private partnerships (PPPs) in water infrastructure, as a tool in the hand of policy makers to managing water resources and financing services in an effective, sustainable and affordable manner. Stemming from the assessment, it will provide a diagnosis of the key governance and capacity building bottlenecks that impede the financing and of the mechanisms to overcome them, in the form of a set of operational guidance and a compendium of good practices.

These key analyses and common denominators will lead to the endorsement – even as pilot cases – of the mechanisms considered most suitable to the country context, through country policy dialogues, and using participatory approaches.

"UfM approves project to improve water governance in the Mediterranean", 25/07/2012, online at: http://mideastenvironment.apps01.yorku.ca/?p=5498



EBRD Expects New Challenges in Water Infrastructure Funding as It Expands to North Africa, Mediterranean

LONDON, United Kingdom — The European Bank for Reconstruction and Development's (EBRD) decision to expand its mandate to encompass the SEMED (Southern and Eastern Mediterranean) region creates a host of "interesting" new challenges, the bank explains to OOSKAnews.

EBRD Director for Municipal and Environmental Infrastructure Jean-Patrick Marquet noted last week that the region "is extremely different to what we've seen in the existing EBRD countries of Eastern Europe and the former Soviet Union, from two main angles -- physical and institutional."

Physically, he explains, the climate in the region (with the exception of Morocco) is very dry. "To an extent, by definition, the water sector is under stress, and requires investment to increase water resources and mitigate climate change, which is a catastrophe in the region."

Another major difference is that the population in the SEMED region is rising fast, whereas in the EBRD's original areas it is either stable or shrinking, as in the case of Russia. The increasing population adds further stresses, Marquet explains, with water utilities not only facing resource scarcity but also the need to increase the water supply.

"This has consequences for us as bankers," he notes. "In our existing countries we are mostly rehabilitating existing assets -- systems built 50 years ago in the Soviet times, which often had very extensive coverage but have not been maintained properly for the last 15 to 20 years." This means a lot of work is needed to optimize existing assets, making them cheaper to operate and more sustainable.

"In the SEMED region it is quite different -- capital has not been sunk, or not enough has been done, and there is a need to expand infrastructure in to areas that are not covered, and to access sources that have not been accessed," he explains.

"This requires a much larger investment and it is much more challenging to undertake and finance than in the existing EBRD countries."



The institutional aspect is also extremely different, says Marquet. "In the existing countries, soon after the fall of the Berlin Wall and the USSR, highly centralized systems were dismantled and decentralized in reaction to 70 years of the Communist regime. Existing regulation structures were almost fully decentralized -- in some cases too decentralized. Having a water company for each small town makes no sense."

In the SEMED region the situation is the other way round, he adds. "Everything is highly centralized, with large holding companies -- Egypt and Morocco are the two most extreme examples -- so decision-making is far from the people, which is part of the democratic deficit you see in these countries. By keeping people far from the decision-making centers, you lose all of the empowerment and engagement of users that ensure reforms are accepted."

The challenge of reform here is greater as people do not see the link between what they pay and the benefits they get, he explains.

"From an institutional perspective, the strategy includes a role for local government in shaping the sector, in pushing the big national holding companies to be more decent, to mobilize finance from their own means -- not to go to government but to try to leverage revenues and involve the private sector as a way to get water treatment plants, wastewater treatment plants and desalination facilities."

The aim is to "step by step drag the water sector towards efficient performance, cheaper operating costs and capital expenditures undertaken in a more streamlined way," he added. "These measures we believe will make the sector more responsive and flexible to address the major physical challenges outlined."

In terms of contributors, the EBRD has its own resources to invest, thanks to an increase in capital two years ago, Marquet explains.

"In the municipal sector, the bank also relies extensively on grants for technical assistance initially to prepare projects and to implement and assist companies in streamlining and improving efficiency, and in some cases grants to mobilize projects where the constraints are too high for the project to be all loan-funded, so we use a blend of loan and gift to keep it within affordability," he adds.



The bank is also trying to explore which donors will be available to support action in the SEMED region. "We expect the main donor will be the EU, particularly the Neighborhood Investment Facility, which is already a major contributor to EBRD activities in the new region and we expect it to be very active going forward," Marquet said.

Financial support for public-private partnership (PPP) tendering is a key issue, he adds, as mobilizing advisors for PPPs is very expensive.

"We can play a key role to make them affordable to authorities," he says. The bank is also talking to other donors, in particular various Persian Gulf funds, but as yet it is too early to announce the first target for funding.

"We don't know yet when we will sign the first investment. We have a strong hope that it will be this year, possibly in Egypt. We are also preparing water projects in Morocco and Jordan."

Although an opportunity has not yet been identified in Tunisia, options are being explored, Marquet says, and he is "confident we will have a project there soon. It is very exciting for us."

"EBRD Expects New Challenges in Water Infrastructure Funding as It Expands to North Africa, Mediterranean", 23/07/2012, online at: https://mail.google.com/mail/?hl=tr&shva=1#inbox/138bf2395dc1fcc1



Drought in Northeast Kenya Leads to Conflict

WAJIR (IRIN) — Parts of northeastern Kenya, which are experiencing an early drought after poor March-May long rains, have seen deadly clashes over water and pasture, say officials. Migrant pastoralists from parts of the northeast and subsistence farmers in the neighbouring eastern and coastal regions of Meru, Kitui and Lamu have clashed, with several deaths reported in Meru and Kitui after the destruction of crops there by large herds of migrating livestock. "The situation is grim. Many households are currently struggling to survive. They have no food, no milk, and they cannot afford to buy food if it's available due to the high prices," Omar Abdullahi Maalim, an official with the Wajir Education Welfare Organization, told IRIN. "We are providing 64,000 litres of water to 800 families in Kanchara [Wajir South District] and a nearby village. We are getting more requests from neighbouring areas. It has been worse since late June," said Maalim. "We only have one donor and the cost of water trucking is high. We tried to ask the community to help but it was shameful since they were the same people whom we offer relief food." He said cases of waterborne disease have been reported. "People need mobile health services now."

"Drought in Northeast Kenya Leads to Conflict", 27/07/2012, online at: http://www.ooskanews.com/daily-water-briefing/drought-northeast-kenya-leads-conflict_23601



❖ The Battle for Water - Water security for whom? Water and security in the Middle East

Eran Feitelson is a professor at the <u>Hebrew University of Jerusalem</u>. The opinions expressed are his own.

Water is essential for life. This is a basic premise underlying the water discourse in all arid and semiarid regions. Nowhere is this perception better acknowledged than the water-scarce Middle East.

Lately the discourse about water has increasingly been couched as a security issue. Yet, such framing may impede the provision of water to people, and hence obstruct the ability to secure water to all people.

The availability of water varies over space and time. In the Middle East rains fall almost exclusively in winter, and the quantities vary greatly between different parts of the area, and between years of plenty and years of drought (which may be successive).

Hence, the supply of water requires that water be stored from winter to summer and from years of plenty to years of drought. It is also necessary that water flow, either naturally or in canals or pipes, from the areas where it is relatively plentiful to areas which are heavily populated but waterless.

As population grows the pressure on the water resources exacerbates. Hence these needs become more acute. To address this growing complexity it is necessary for people in an increasingly widening area to cooperate. This is where the problems lie.

Most countries in the Middle East view water as a national security issue. This has led them, with very few exceptions, to undertake expensive schemes that will allow to maintain control over all water resources, often over cheaper options to supply water, but that are premised on transboundary cooperation.

Thus, Saudi Arabia attempted to grow wheat, a water-intensive crop, under a food security rationale. Jordan advances an expensive water conveyance and desalination scheme from the Red Sea rather than conveying water from the Mediterranean through Israel, which is cheaper.



Palestinians and Israelis haggle over "water rights" and do not treat the wastewater of Palestinian cities and Israeli settlements on the West Bank due to the political implications of cooperation, thereby polluting their joint groundwater and under-supplying the population in need.

Turkey builds massive irrigation projects at the expense of Syria and Iraq, while Syria does the same to Jordan. There can be an alternative view.

That water has to be secured at the household level. That is, the needs of people come first, before national level considerations.

That may seem improbable. Yet experience teaches us that transboundary water agreements are reached only when the parties address real needs, rather than abstract principles.

Thus, if security is not to be an impediment to addressing the real water needs of people, it has to be re-defined as the water security of households, rather than as a national security issue.

As this is unlikely in the current Middle East atmosphere, it is perhaps better to de-securitize water and talk of peoples' needs instead.

"The Battle for Water - Water security for whom? Water and security in the Middle East", 24/07/2012, online at: http://www.trust.org/alertnet/blogs/the-battle-for-water/water-security-for-whom-water-and-security-in-the-middle-east



❖ Indian State Opposes More Federal Control Over Water Management

India, CHandiGarH — The northern Indian state of Punjab is objecting to a proposal from parliament members to increase federal authority over water issues in the country, accusing New Delhi of trying to usurp states' powers.

Chief Minister Parkash Singh Badal has asked for direct intervention by Prime Minister Manmohan Singh to kill the proposal, a spokesman for Badal's office said on July 22.

Badal has also written letters to Home Minister P. Chidambaram and Water Resources Minister Pawan Kumar Bansal urging them "to desist from the purported move before it leads to further suspicion and harm."

He said Punjab opposed the proposal to include water on the Concurrent List of legislative powers, those shared by the federal and state governments under the Indian constitution. He said he also opposed the proposal in the context of the larger issue of federal-state relations.

"What is required at this stage is the harmonious resolution of the inter-state water issues, in accordance with the nationally and internationally accepted riparian principles," Badal wrote.

He said sharing of river waters was an emotional issue, and that it had been a root cause of the militancy that Punjab and the rest of the country had to deal with during the 1980s and 1990s.

Badal was responding to reports that a parliamentary committee comprising members of different political parties during a July 14 meeting proposed expanding federal authority over water management, rather than leaving it within the purview of states.

The federal government has not commented on the issue, hoping to avoid outcry against it.

Badal noted that the issue of water was not discussed when federal Home Affairs Minister P. Chidambaram held a meeting with the state officials in Chandigarh in mid-July.

If the committee's recommendations are accepted, the federal government's hand will be strengthened in addressing inter-state water disputes and dealing with issues like river inter-linking.

"Indian State Opposes More Federal Control Over Water Management", 24/06/2012, online at: https://mail.google.com/mail/?hl=tr&shva=1#inbox/138bf2395dc1fcc1



❖ Stalled Gomal Zam Dam Leaves Pakistan Farmers Without Irrigation

Pakistan, PESHAWAR — Over 28,000 hectares of land has been left barren in 37 villages in Dera Ismail Khan because they are not receiving irrigation water from the stalled Gomal Zam Dam, according to farmers in the region.

Sheikh Mukaram, president of the Aiwan-e-Zarat (agriculture chamber) in the city of Dera Ismail Khan expressed concern last week that irrigation channels from the dam's reservoir to catchment areas of the Loonee Nullah River will never be built, after the government made changes to the dam project.

As a result, thousands of farmers will never receive water from the Loonee Nullah River.

Mukaram said he was considering filing a legal case over the issue; he said the farmers' perennial water rights, outlined in the 1876 and 1901 land settlement records, had been violated by construction of the dam.

However, officials are still insisting that farmers in the Loonee Nullah catchment areas will start getting water for irrigation once the dam's reservoir is filled to the required level.

Gomal Zam Dam project director Saleem Khan said the reservoir's water level had reached 714 meters. Water will be released downstream only when the reservoir is filled to 743 meters, which is a prerequisite for power generation. The irrigation water will be available to the farmers only after the area receives monsoon rains.

Although work on the dam's electricity generation component is near completion, the irrigation component, which includes a 63-kilometer-long main canal and 369-kilometer-long distributaries, is far behind schedule.

The Gomal Zam Dam has a total water storage capacity of 1.4 billion cubic meters. It is expected to generate 17.4 megawatts of electricity and to provide irrigation water to thousands of farmers in the Dera Ismail Khan and Tank districts of Khyber Pakhtunkhwa province.

According to one estimate, it could irrigate over 77,000 hectares.



The multi-purpose project was started in July 2002. It was scheduled to be completed by September 2006.

Work had to be stopped in 2004 because of the security situation in the area, when two Chinese engineers working on the project were kidnapped by militants.

The project cost was originally estimated at \$132.7 million USD, but with inflation the cost estimate has now been increased to \$217.8 million USD.

"Stalled Gomal Zam Dam Leaves Pakistan Farmers Without Irrigation", 25707/2012, online at: http://www.ooskanews.com/daily-water-briefing/stalled-gomal-zam-dam-leaves-pakistan-farmers-without-irrigation_23551



India discusses possible drought, monsoon rains poor

(Reuters) - India's government raised the possibility of a drought for the first time this year and said on Thursday that ministers would meet next week to discuss the lack of monsoon rains, which define output for the major consumer and producer of food crops.

It will be the first time the Empowered Group of Ministers (EGoM) on drought has met since 2009, which saw the driest monsoon in nearly four decades in Asia's third-largest economy, where more than half of arable land is rain-fed.

Halfway through the June to September season, rains are 22 percent below average, the India Meteorological Department (IMD) said on Thursday, days after the government kicked off contingency plans for a below-normal monsoon.

"An (empowered group of ministers) on drought is likely to meet on Tuesday, but I am seeking the availability of other ministers," Farm Minister Sharad Pawar told reporters. "We will discuss the situation there."

The meeting could be around August 1, said V Narayanasamy, a junior minister in the prime minister's office, adding the government would review the situation after 15 days. "We have asked the states for their assessment reports and we will then verify independently to arrive at a decision," he told Reuters.

The four-month monsoon brings 75 percent of annual rainfall and half of that is usually delivered in June and July, when rainfall this year only managed to reach 2009's drought levels.

The crisis for one of the world's largest consumers and producers of commodities including sugar, rice, cereals, oilseeds and pulses comes as global prices for cereals reach record highs on a major drought in the United States.

New Delhi on Monday said the supply of water this year was below average but it stopped short of calling it a drought, which means rains at best 90 percent of long-term averages.



The Indian Meteorological Department will issue its next official forecast, focusing on August and September, before the end of July.

Parts of central India, the northern plains and the coastal belt should see moderate to heavy rainfall until early next week but western India and the interior south peninsula will continue to have a shortfall, said S.C. Bhan, a director of the IMD.

The government is already providing supplies of high-yielding seed varieties, ensuring fodder availability and increasing power supplies to some areas as farmers across the country struggle to plant summer crops in the dry earth.

New Delhi, already battling to contain double-digit food inflation, now faces further price increases due to food shortages for its 1.2 billion people, some 42 percent of whom live in poverty.

And increased demand for diesel, which is used for irrigation when rains fail, has put pressure on Prime Minister Manmohan Singh to hold off on widely anticipated fuel price rises, making budget targets harder to achieve.

PULSES, OILSEEDS OUTPUT HIT

Food Minister K.V. Thomas said the poor rains could cut output of pulses and oilseeds and that could mean India, already the world's largest importer of lentils and edible oils, has to buy more from overseas suppliers.

Rains improved over soybean growing areas of central India last week, the IMD said, but it might not be enough to revive planting which is lagging last year for all crops except cane.

Rice and cane production are not expected to suffer as farmers still have time to catch up on sowing with rains in West Bengal and Odisha only 2 percent below normal last week and ample in Uttar Pradesh, one of the top cane producing states.

But at least for now, there are no plans to ban exports, Thomas added, although the government will review the situation in mid-August. India currently allows exports of rice, sugar, cotton, corn and wheat.



New Delhi will also decide next week whether to ban <u>futures</u> trading in selected farm commodities that have seen extreme price moves, government sources said. Sugar and chick pea futures have been most volatile recently.

On Thursday, sugar and chick pea, or chana, futures eased on concerns the government might put restrictions on futures trade in these commodities.

Soybean and soyoil futures, however, fell on a drop in the overseas markets and as rainfall in the top soybean producing Madhya Pradesh state in the past two days allayed concerns over poor yields.

"India discusses possible drought, monsoon rains poor", 26/07/2012, online at:

<a href="http://www.reuters.com/article/2012/07/26/us-india-monsoon-drought-idUSBRE86P0XZ20120726?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=188222ef30-RSS_EMAIL_CAMPAIGN&utm_medium=email



❖ Faced with drought, Peru's highlanders revive ancient water harvesting

PUNO, Peru (AlertNet) – From the air above the town of Puno, the Peruvian Altiplano appears an endless plain where only clumps of *ichu* grass withstand the harshness of the sun and lack of water.

But looks deceive: these parched lands in the country's southeast, located at 4,000 metres altitude (13,000 feet), are home to thousands of poor farmers who for centuries have managed to grow potatoes and grain in this rugged environment.

Today, as droughts become longer, Puno's inhabitants are relearning ancestral practices of cooperative farming and water harvesting to cope with the challenges associated with climate change.

"We cannot wait for the regional or national government to help us solve our problems," says Zenon Gomel Apaza, an agronomist and farmer. "The consequences of climate change are occurring now. We have to cope with what we know and have."

The agronomist won a Rolex Award for Enterprise in 2006 for helping 500 families in Pucara, 60 km (38 miles) north of Lake Titicaca, to widen the genetic variety of their crops to increase food security.

For the past two years, the Asociacion Savia Andina Pucara (ASAP), a nongovernmental organisation focused on agriculture and food security and founded by Gomel Apaza, also has been working to improve water security in Peru's highlands. In April, the new venture garnered him an Indigenous and Traditional Peoples Conservation Fellowship from the US-based NGO Conservation International.

BUILDING RESERVOIRS

In the village of Quenauni Alto, 20 km (13 miles) from Pucara, Mario Arapa has constructed several *cochas* (small ponds) on his land under the guidance of ASAP.

Each *cocha* is no more than two metres by four metres in size (6.5 feet by 13 feet) and only one metre (3.25 feet) deep, but for Arapa and his eight children these traditional reservoirs make the difference between surviving in a harsh environment and capitulation to worsening conditions.



"Frosts are (now) more frequent and last longer. The sun burns harder," says Arapa. "Before (washed) clothes took two days to dry, now just one day."

Eddy Wilber Ramos, an agronomist and Gomel Apaza's assistant, says tougher times mean "there are dozens of families who are migrating from these areas because they are no longer able to tolerate the climate conditions in which they must work."

According to Arapa, his crops of quinoa – an Andean highland grain - are threatened not only by flocks of birds but by new, previously unknown pests. But the biggest problem is the scarcity of water.

"Before, it began to rain in October. Nowadays we must wait almost until December for rain," he says.

To deal with the problem, Arapa has dug a narrow trench in the ground to supply his reservoir with water. It channels a small spring welling from the hillside.

Gomel Apaza explains that the redirected water accumulates in the *cochas*. As these have no lining, water slowly seeps into the earth, recharging the aquifers. The *cochas* also serve as water reservoirs for the dry season.

Collecting and harvesting water allows Arapa to have a permanent supply for his cattle and has enabled him to double his production of fodder by irrigating more than three-quarters of a hectare (nearly two acres) of his land in the dry season.

Projects like ASAP seek to remedy some of the damage caused by the "Green Revolution" that began in the 1960s. The revolution – which focused on introducing high-yielding seeds and introducing more use of farm chemicals and other technology – dramatically raised crop yields in many places around the world.

But the revolution also reduced the once dramatic genetic diversity of crop species available in the Andes. As climate change worsens, this lack of choices has made farmers in the Andes more vulnerable to shifting conditions and less able to respond.



Some farmers also argue that the Green Revolution brought with it a competitive, individualist model for farming which weakened cooperation among farmers.

Gomel Apaza is quick to point out that ASAP's project addresses these social consequences too.

"We are encouraging the farmers to recover old forms of cooperation between families – like *ayni* and *minka*," he says, referring to practices of reciprocity dating back to the Inca period. *Ayni* means that one person helps another with agricultural work or construction, with the understanding that the favour will be returned in the future. *Minka* refers to the help that someone gives to another farmer in harvesting, in return for a share of the crops.

ASAP is also seeking to reinstate the rituals of earlier generations, such as thanking the *Pachamama* (Mother Earth) and asking her to be propitious.

"In this way we help strengthen social ties, and we promote the care and respect of the environment," Gomel Apaza explains. "Regaining the awareness that we are part of nature and that this is not just a resource, but our mother, changes the feelings and attitudes towards it."

PASSING ON KNOWLEDGE

In Ccochapata, a community near Queñuani Alto, Juan Francisco Idme examines his *cochas* in the company of 16-year-old John Roma.

"With the help of the engineers (Gomel Apaza and Wilber Ramos) and listening to our grandparents, I am harvesting water where before there was only dry land," says the 62-year-old. "And this knowledge I try to convey to the young, because I don't want it to be lost," he adds, pointing at Roma.

Since schools do not teach the practicalities of water conservation and agriculture, Idme asks teachers informally for time to educate some students.

Gomel Apaza also worries about the intergenerational transmission of knowledge. And he is aware that for water harvesting in the mountains to be work sustainably, the scale of the effort needs to increase – something that often requires the involvement of political authorities.



The president of Puno region, Mauricio Rodriguez, says that he appreciates Gomel Apaza's efforts and is convinced that Puno is primarily an agricultural area, despite recent attempts by some residents to open unlicensed small-scale mines.

But he sees a different way of bringing water to the region.

"We have great agricultural potential," he says. "To solve the problem of lack of water we must build a chain of mega-reservoirs throughout the basin. We have over 30 projects needing funding."

Gomel Apaza is sceptical. "With what money will they build these mega-projects?" he asks. He believes that Peru lacks the resources needed to tackle growing water stress, which is expected to worsen as the region's remaining glaciers disappear and climate change shifts rainfall patterns.

In the coming weeks, ASAP is organising 10 community forums that will lead to a national forum for representatives of indigenous communities on Nov. 12 this year.

"The goal is to share experiences and take up the proposals of the peasants to face the consequences of climate change," says Gomel Apaza.

He hopes that these ideas will become part of the proposal that Peru takes to the UN-led international climate talks the same month

"Faced with drought, Peru's highlanders revive ancient water harvesting", 25/07/2012, online at: <a href="http://www.trust.org/alertnet/news/faced-with-drought-perus-highlanders-revive-ancient-water-harvesting?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=bb79aa778b-RSS_EMAIL_CAMPAIGN&utm_medium=email



Awareness drive on rainwater harvesting begins

INDORE: To promote rainwater harvesting, Indore Municipal Corporation (IMC) has decided to spread awareness among the people. Two vehicles of IMC started moving in different parts of city from Tuesday, educating people through display and models. The awareness drive is likely to continue till the end of the monsoon.

Mayor Krishnamurari Moghe said that civic body is giving six per cent rebate in property tax for the building owners if they install rainwater harvesting system in their building. IMC will also give free technical advice and consultancy to those who wants to install rainwater harvesting.

The vehicles will move into lanes of the city to create awareness about rainwater harvesting. Monsoon has just started and it is the right time to sensitize people about its importance," he said adding that ground water level of the city has depleted drastically and Indore is one of the areas with most critically exploited ground water.

Civic officials believe that rainwater harvesting is the only way to arrest the depleting ground water level. Right now, around 40 per cent of the city population is dependent on ground water and further depletion of ground water will create serious water crises in the city.

<u>Vipul Shah</u>, a businessman, however said that cosmetic actions like distributing pamphlets and creating awareness through vehicles alone will not serve the purpose.

"Civic body only talks about rainwater harvesting but it has not taken any serious efforts for its implementation. If Chennai can successfully implement rainwater harvesting system then why can't Indore," he questioned.

"Awareness drive on rainwater harvesting begins", 25/07/2012, online at: http://articles.timesofindia.indiatimes.com/2012-07-25/indore/32847028_1_ground-water-awareness-drive-indore-municipal-corporation



* River rifts threaten 'water wars'

ANZALWAN (India-Pakistan Line of Control): A s the silver waters of the Kishanganga rush through this north Kashmir valley, Indian labourers are hard at work on a hydropower project that will dam the river just before it flows across one of the world's most heavily militarised borders into Pakistan.

The hum of excavators echoes through the pine-covered valley, clearing masses of soil and boulders, while army trucks crawl through the steep Himalayan mountain passes.

The 330-MW dam is a symbol of India's growing focus on hydropower but also highlights how water is a growing source of tension with downstream Pakistan, which depends on the snow-fed Himalayan rivers for everything from drinking water to agriculture.

Islamabad has complained to an international court that the dam in the Gurez valley, one of dozens planned by India, will affect river flows and is illegal. The court has halted any permanent work on the river for the moment, although India can still continue tunnelling and other associated projects.

In the years since their partition from British India in 1947, land disputes have led the two nuclear-armed neighbours to two of their three wars. Water could well be the next flashpoint.

"There is definitely potential for conflict based on water, particularly if we are looking to the year 2050, when there could be considerable water scarcity in India and Pakistan," says Michael Kugelman, South Asia Associate at the Woodrow Wilson International Center for Scholars in Washington.

"Populations will continue to grow. There will be more pressure on supply. Factor in climate change and faster glacial melt... That means much more will be at stake. So you could have a perfect storm which conceivably could be some sort of trigger."

It's not just South Asia – water disputes are a global phenomenon, sparked by growing populations, rapid urbanisation, increased irrigation and a rising demand for alternative power such as hydroelectricity.



Turkey, Syria, Iran and Iraq quarrel over the waters of the Tigris and Euphrates. The Jordan river

divides Israel, Jordan, Lebanon and the West Bank. Ten African countries begrudgingly share the

Nile.

In Southeast Asia, China and Laos are building dams over the mighty Mekong, raising tensions with

downstream nations.

A US intelligence report in February warned fresh water supplies are unlikely to keep up with global

demand by 2040, increasing political instability, hobbling economic growth and endangering world

food markets.

A "water war" is unlikely in the next decade, it said, but beyond that rising demand and scarcities due

to climate change and poor management will increase the risk of conflict.

Major threat

That threat is possibly nowhere more apparent than in South Asia, home to a fifth of humanity and

rife with historical tensions, mistrust and regional rivalries.

The region's three major river systems – the Indus, the Ganges and the Brahmaputra – sustain India

and Pakistan's breadbasket states and many of their major cities including New Delhi and Islamabad,

as well as Bangladesh.

"South Asia is symbolic of what we are seeing in terms of water stress and tensions across the

world," says BG Verghese, author and analyst at New Delhi's Centre for Policy Research.

The region is one of the world's most water-stressed, yet the population is adding an extra 25 million

people a year – South Asia's per capita water availability has dropped by 70% since 1950, says the

Asian Development Bank.

The effect of climate change on glaciers and rainfall patterns may be crucial.



"Most of the water that is used in Pakistan comes from glacial melt or the monsoon," says Rafay Alam, an environmental lawyer and coordinator of the water programme at Lahore University of Management Sciences.

The dry months of June-July offer a snapshot of the extreme water crisis in the region.

Hospitals in New Delhi this year cancelled surgeries because they had no water to sterilise instruments, clean operating theatres or even wash hands. Swanky malls selling luxury brands were forced to switch off air conditioners and shut toilets.

In Pakistan, the port town of Gwadar ran out of water entirely, forcing the government to send two naval water tankers. Some government flats in the garrison city of Rawalpindi have not had water for weeks, said the local press.

India, as both an upper and lower riparian nation, finds itself at the centre of water disputes with its eastern and western downstream neighbours – Bangladesh and Pakistan – which accuse New Delhi of monopolising water flows.

To the north and northeast, India fears the same of upstream China, with which it fought a brief border war in 1962. Beijing plans a series of dams over the Tsangpo river, called the Brahmaputra as it flows into eastern India.

Dam disputes

For India, damming its Himalayan rivers is key to generating electricity, as well as managing irrigation and flood control.

Hydropower is a critical part of India's energy security strategy and New Delhi plans to use part of it to reach about 40% of people who are currently off the grid.

A severe power shortage is hitting factory output and rolling outages are routine, further stifling an economy which is growing at its slowest in years.



India's plans have riled Bangladesh, which it helped gain freedom from Pakistan in 1971. Relations cooled partly over the construction of the Farakka Barrage (dam) on the Ganges River which Dhaka complained to the United Nations about in 1976. The issue remains a sore point even now.

More recently, Bangladesh has opposed India's plans to dam the Teesta and Barak rivers in its remote northeast.

But India's hydropower plans are most worrying for Pakistan. Water has long been a source of stress between the two countries. The line that divided them in 1947 also cleaved the province of Punjab, literally the land of five rivers – the Sutlej, Beas, Ravi, Chenab and Jhelum, all tributaries of the Indus – breaking up millenniums-old irrigation systems.

India's latest hydro plans have fanned new tensions.

"Pakistan is extremely worried that India is planning to build a whole sequence of projects on both the Chenab and Jhelum rivers... and the extent to which India then becomes capable of controlling water flows," says Feisal Naqvi, a lawyer who works on water issues.

In recent years, political rhetoric over water has been on the rise in Islamabad, and militant groups such as the Lashkar-e-Taiba have sought to use the issue to whip up anti-India sentiments – accusing New Delhi of "stealing water".

India brushes off such fears as paranoia and argues the dams won't consume or store water but just delay flows, in line with a 1960 treaty that governs the sharing of Indus waters between the two countries.

Sink or swim

South Asia's water woes may have little to do with cross-border disputes, however. Shortages appear to be rooted in wasteful and inefficient water management practices, with India and Pakistan the worst culprits, experts say.



"All these countries are badly managing their water resources, yet they are experts in blaming other countries outside," says Sundeep Waslekar, president of Strategic Foresight Group, a Mumbai-based think-tank.

"It would be more constructive if they looked at what they are doing at home, than across their borders."

Their water infrastructure systems, such as canals and pipes used to irrigate farm lands, are falling apart from neglect.

Millions of gallons of water are lost to leakages every day.

The strain on groundwater is the most disturbing. In India, more than 60% of irrigated agriculture and 85% of drinking water depend on it, says the World Bank. Yet in 20 years, most of its aquifers will be in a critical condition.

Countries must improve water management, say experts, and share information such as river flows as well as joint ventures on dam projects such as those India is doing with Bhutan.

"Populations are growing, demand is increasing, climate change is taking its toll and we are getting into deeper and deeper waters," says Verghese, author of "Waters of Hope: Himalayan-Ganga cooperation for a billion people".

"You can't wait and watch. You have to get savvy and do something about it. Why get locked into rhetoric? We need to cooperate. Unless you learn to swim, you are dead."

(This story is part of a special multimedia report on water produced by AlertNet, a global humanitarian news service run by Thomson Reuters Foundation.)

"River rifts threaten 'water wars'", 24/07/2012, online at: http://www.freemalaysiatoday.com/category/world/2012/07/24/river-rifts-threaten-water-wars/

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Nepal-India Water politics

Nepal-India Relations:

Nepal has many fold relations with India. The open border system, the presence of BSF (Border Security Forces), its influences upon Nepali politics and economy and mainly on Political Parties has created a critical situation for its survival and smooth economic growth. Nepal is now in more dangerous zone politically and economically because of its vast water resources.

Indian Eagle Eyes on Nepal's Water:

India has its eagle eyes upon the water reserves of Nepal. India is in great shortage of electricity and fresh water. As mentioned in the 12th periodic five year plan the electricity demand has increased by 9 percent annually. Over 400 million people of India have no access of electricity. There is shortage of electricity facility to 56 percent households of India i.e. 7 Crore 80 Lakh families. The per person annual electricity consumption in India is 600 units. It is one fourth of the average consumption of the people of world. India cannot achieve its 10 per cent economic growth- goal without having sufficient electricity. Presently the installed capacity of electricity of India is 132,000 MW. This is just one fourth of the installed capacity of China. China already has 622000 installed capacities. India had added

54 000 MW electricity in the foregone three periodic plan periods and is expecting to add 78577 MW. India is going to install atomic power plant to meet its growing demand of electricity. Only 26 percent of the installed capacity of power is hydroelectricity. India produces electricity 66 percent by the thermal/gas, 3 % by atomic, 5 % by other renewable things. India is in need of inter-country transmission lines of 400 KV. A concept of SAARC transmission line is raised by India. It is good for all countries of this region mainly good for India.

India is the third great economy country in Asia which is facing the shortage of 73 Arab and 5 crore units of electricity.

Nationalism vs. Individualism:



A strong nationalistic flavor between the years 1963- 1990 Nepal stopped selling water rights and water resources to aliens and started constructing itself. Among them the most important projects were the Karnali, the Arun-3, and the Kankai high dam producing over 2000 MW and would have completed by 1985. It is the Nepali parties mainly NC and CPN-UML and their water pundits (then banned and in underground shelter) performed the protest activities in favor of India. Because of that Nepal is in a critical load shedding state almost in dark and the electricity tariff is more expensive than it had to be. Everyone should realize that all the major rivers such as the Koshi, the Gandaki and the Mahakali were sold through damaging agreements instead of harnessing it. Same projects after hurdling of 3 decades at present those parties when they are in government have handed over the projects to India owned companies. Along with the end of the "Panchayati democracy," a new trend got underway entailing Nepal to surrender rivers to private sectors. India after the Mahakali agreement opposition experience, with hot and bitter criticism, has come into Nepal wearing a different type of dressing. Now the multi- party government in the name of export oriented projects has handed over those projects one after another to India and Indian companies putting Nepal in dark; closing Nepali industries so that Indian duplicate cheap goods may easily penetrate into Nepal's market. Examples of this new trend manifests in West Seti, Upper Karnali and Arun III projects. The BIPPA agreement 2011 further seals them.

National interest penetrates Alien interest:

Without spelling it out explicitly, Nepal's right to water in these rivers have been ceded. In terms of downstream benefit in the case of reservoir projects is relatively easy to understand than the runoff river projects. The political party leaders refuse to understand the value of stored water. They only know that water flowing in rivers, for which no one will be willing to pay a price. For them, as GP Koirala several times expressed, is no more than 'waste water'. Without adding spatial or temporal value to it, let us say 'a waste' but the West Seti project; for example, augments the dry season flow in the downstream areas in India is calculated by 90 m3/s, which is equivalent to 7.77 billion liters per day. In order to understand the value of such water one needs to know the expenses of Melamchi drinking water project of Rs 30 billion to bring 170 million liters per day into Kathmandu valley. Had West Seti project been conceptualized as a multipurpose project? Is not there any downstream benefit to India? Besides benefiting from flood control benefits during summer and to smooth irrigation



during winter (dry season) how can India receive such stored water free of cost? The genuine question is why Nepal should inundate over 4,000 hectares of its land to build the reservoir? And as a result of Laxmanpur barrage why 30,000 people of Banke district have to be displaced over just to provide additional water to India during dry season free of cost? Politicos and bureaucrats sermonize that Nepal is free to use such water while it flows within Nepal.

But without a multipurpose project being conceptualized for Nepal to use such water, India, after using the augmented flow during one season, will start asserting the principle of "existing prior consumptive use" and Nepal will lose the right over such bodies of water permanently. This principle has already been used in structuring Mahakali Treaty to the disadvantage of Nepal. This is one way of gifting precious fresh water produced by storing it in Nepal to India.

All Nepalis need to understand the history of Ethiopia, Africa. Ethiopia and Nepal are alike, both mountainous and rich in water resources. There are 70 ethnic groups in Ethiopia in which Aroma consist of 40 percent Amhara 25%, Tigre 12%, Guhare 4% whereas in Nepal none of the ethnic group consists more than 18 percent. There are 70 languages and over 200 dialects in Ethiopia. Because of ethnic and linguistic violence Ethiopia was divided into two nations. Eritrea became *independent in 1992.* The story of Ethiopian water is directly related with its politics. So is in Nepal. The anti-king group of Ethiopia used to stay in Sudan and Kenya to revolt against the kingship as Nepali groups in India. The King Helesilashi was removed in 1974. Since then the nation's economics, security and law & order situation has been badly ruined. The domestic war is going on. The reasons behind it are the 'Inclusiveness' and the 'federalism'. The present rulers during conflicts resided in alien countries and were fed by them. They had internal understanding regarding the use of fresh water. The Ethiopian water is now being used by the neighboring nations Sudan, Kenya and Somalia and Ethiopian farmers and general public are restricted to use it. They cannot build dams and power projects. They cannot irrigate their land and they cannot conduct project even for the drinking purposes. Because of the treaties, understandings the case in the UNO is also not heard. They cannot appeal in the International Court of Justice as well. Ethiopians have no right even to control soil erosion and protection of environments.

Like in Ethiopia Nepali leaders, mainly the three major parties also fought against Nepal having shelter in India. Now the fourth one is being fighting sheltering in India. Now, they are in



government & power, cannot say 'no' anything that India proposes. Whatever they utter sometime against India is a drama to confuse the general public. Now Nepal's water is being grabbed by India through several means by means of contracts, through agreements, through practice of uses and through the use of forces. If the situation remains as it is, Nepalis will only see water but cannot touch it. India has spoiled Nepal's politics because of its fresh water interests. The congenial situation of ethnic violence Aadivashi, Janjati, Chuchche-buchche, Madeshbad and the demand of federalism are due to India and partly due to missionaries. The Loktantra, samabeshiprajatanra, atmanirnayako adhikar, jatiya swayattata, bhasik swayattata, bahunbad etc. (democracy inclusiveness, right to self decision, ethnic freedom, linguistic freedom, chase Aryans mainly Brahmins) are the outcome of the alien coined.

NC handed over Koshi, Gandaki and Mahakali was supported by CPN-UML as well. The MoU of 10 June 1990 is another dangerous handing over. Even Maoists are making drama and supporting India in the other ways. The BIPPA is the main gate opened by them. A communist, instead of nationalization, invites multinational companies what they frequently called samantbadi, expansionist. All these parties what so ever ideology they propagate, worked a lot in favor of India. They ruined the projects mainly, Karnali, Arun-3, Kankai high dam and the Sikta projects when Nepal was going to build itself. Because of the antinational activities of those parties Nepal is now in a critical load shedding and drinking water problems spoiling the industry sectors and day to day life of the people. There is no point that there is no chance for domestic war, issues of separatism are emerging. The parties do so just for some money to run their parties and get some scholarships for their children and kinsmen. If someone conducts a family research of the political party leaders it can be proven. It is no more different in Nepal now than that of the Eritrean Liberation Front in Ethiopia. The Georgian incidents are also similar to Nepal's Tarai slogans and demand. The 1947 incident was repeated in Eritrea which is possible in Nepal's Tarai. It is easy to divert people's mind when the society is in the transitional stage, but harmful at the long run.

The myopic view:

The leaders take a myopic view of things and are ignoring what should be a supreme consideration in India's dealings with its neighbors. The importance of the hydro power potential of Nepal is ignored. The hydro potential of Nepal is as significant to India as the oil resources of Iraq, Iran, Kenya and



Saudi Arabia to America. India's greater economic growth both in agriculture and industries depends on Nepal's water. Like it or not, India's policies towards Nepal must be considerably conditioned by this realization.

Neighbors grumble only:

The smaller neighbors grumble only but India exploits them and gains. Neighbors only refuse to be convinced. They do not think India alone can take a decision on natural resources of other countries.

India to these days appears active in the US\$118 billion interlinking of the rivers project which was first mooted in 1982. It appears to have been inspired by China's south-north water diversion \$60 billion project. The project primarily expects to provide internal water security to the Indian people; remove water scarcity and water-induced disasters; bring into 35-37 million hectares of farmland under irrigation; generate 34 billion kilowatts of electricity; control floods in flood-prone states and enhance the country's navigational efficiency.

A feasibility study has already been opposed by native environmentalists. They have been opposing the construction of large dams and embankments. Since, Indian constitution has made water a subject to be dealt with by individual states. However, the process of consultations is on the federal initiative. The central government is visibly slow. It seems no state government is ready to take up the project.

The project has two components; the first one includes 14 Himalayan river links coming from Nepal and Bhutan. The second component is to have 16 peninsular river links in India's south. The Himalayan river links are the Ganges and Brahmaputra-fed component in which Nepal, the upper riparian country in the Ganges basin, is the major contributor. Similarly the lower riparian Bangladesh cannot be ignored. This ground reality does not permit India to ignore or bypass a neighbor which provides a perennial source of water from its snow-fed rivers and the uses of lower riparian nation as well. Indian diplomat Salman Haidar, former foreign secretary has admitted in an article published by The Statesman newspaper says "Nepal ... hence [is} a necessary partner in any large-scale water management plans." Similarly, if the mighty Brahmaputra River is diverted to a west-bound canal before it reaches Bangladesh, she would face a worse scenario. *The ecology of the entire area including that of the Sunderbans would be adversely affected and desertification would*



ensue. Bangladeshi minister for water resources, Mr. Hafiz Uddin Ahmad, after visiting Nepal says- "It is going to bring a calamity of unthinkable proportions. Water management is a question of life and death for Bangladesh; the economy of which is dependent on 54 major rivers flowing through it". The great anxiety persists in Dhaka and Kathmandu how to play a crucial role. Tempering with the natural river systems can pose a danger to the region.

Published with permission from the author's fresh book 'Water Politics On Nepal's Fresh Water': Ed.

"Nepal-India Water politics", 29/07/2012, online at: http://www.telegraphnepal.com/national/2012-07-25/nepal-india-water-politics.html



❖ Right to Water: Learning from Past Struggles

The privatization of water services over the past 30 years has generated a counter-wave of popular resistance that is still growing strong, with activists at times invoking rights or using litigation to reverse private deals and fight for public provision. On the eve of the second anniversary of the United Nations recognition of the right to water, many will put down their swords for a moment to take stock of the efficacy of such legal battles in challenging privatized water services.

The <u>Municipal Services Project</u> research <u>Shields and Swords: Legal Tools for Public Water</u> finds that their success has been mixed, with some legal actions managing to get the right to water written into law or banning private water provision altogether, while others have met with partial success. Among others, it analyzes at length two case studies from Latin America where referenda have been at the center of campaigns for public water: Uruguay and Colombia.

A referendum is a direct vote in which an electorate is asked to accept or reject a specific proposal. The Uruguayan referendum of 2004 appears to be the first example of this strategy being used to outlaw water privatization. After 1993 private water concessions led to a rapid deterioration of water services, with reduced access and soaring tariffs, the *Comisión Nacional en Defensa del Agua y de la Vida* came together and launched a campaign that collected the 283,000 signatures required to force a popular vote. Uruguayans voted to introduce a constitutional amendment recognizing the right to water and entrenching the principle of public ownership and management. Foreign private water companies were effectively ousted – after significant complications and problematic government appeasement – but a public-private partnership was subsequently created to run the country's water services, contravening the amendment. The campaign continues to fight commercialization and mobilize for greater public participation in water management.

Inspired by the Uruguayan struggle, Colombia's anti-privatization movement has attempted to reverse water privatization in that country. In 2008, <u>Ecofondo</u> called for a referendum on a constitutional amendment to enshrine a right to water, a minimum amount of water per person, and public management of water services.

However, the initiative was undone by Congress in May 2010 when it dismissed the draft referendum bill despite massive popular support. Ecofondo has nevertheless raised public awareness of high water tariffs and continues to campaign against privatization. Citizens have kept up the pressure at the municipal level. In the port city of Buenaventura, for example, the <u>Defensoría Regional del Pueblo</u> has been denouncing the mediocre water service and has recently carried through a popular action in a local court. If granted, the court order would force the delivery of an improved service, although effective coordination among all stakeholders may prove difficult.

In short, referenda campaigns have proven to be an effective way to tap into widespread public opposition to reverse or challenge privatization and, as a counter-strategy, appear to be growing in popularity around the world. Where referenda have been less successful is in defining alternative models of public water services; this next step will be crucial to ensure that sustainable models fill in the vacuums left by private providers.



These cases demonstrate that privatization can be challenged on its own legal terms, exposing it to closer public scrutiny. But using or creating a new law is only the first step in what must be a longer political struggle to provide genuinely democratic forms of public water provision. As such, legal campaigns must also strive toward building frameworks for regulating, maintaining and monitoring progressive management of services after they become public. For that reason dedicated and committed activism is more critical to the success of campaigns than the legal tools themselves.

Finally, whether or not 'rights' frameworks are invoked, pro-public activists derive authority, legitimacy and solidarity in their legal campaigns from the international recognition of a right to water of July 28, 2010. From leftist perspectives there is much debate about whether this vision of law can ever be useful for radical social and economic change, many arguing it is ideologically biased toward the status quo and private interests; as such, legal tools are seen as potentially harmful to radical movements.

Notwithstanding, our research shows that the right to water can be viewed as an enabling framework that, although potentially friendly to privatization, can be used along with other laws to build, mobilize and legitimize campaigns opposed to privatization.

Two resounding victories in Berlin and Italy – two other cases explored in our study –are marking the right to water's first anniversary at the UN. In Berlin, the city administration recently announced it was buying the shares of private company RWE in the water utility, raising its stake to 75.05% from 50.1%. In February 2011, Berlin residents had voted by a margin of 98.2% after a Berlin Water Table campaign to pass a draft bill to force the municipal administration to disclose secret agreements on the partial privatization of the city's water services. Some months later, hopes for remunicipalization are coming true.

In Italy, after the Berlusconi government went ahead with its privatization agenda despite a citizen-led referendum that rejected by 96 per cent the proposed privatization of the country's water supply in June 2011, the Italian Constitutional Court ruled this month to uphold the people's will to keep water in public hands. The unrelenting efforts of the *Forum Italiano dei Movimenti per l'Acqua* have no doubt gone a long way to safeguarding what had been gained from hard mobilization work.

Let's keep building on these foundations, everywhere.

"Right to Water: Learning from Past Struggles", 26/07/2012, online at: http://www.towardfreedom.com/home/environment/2915-right-to-water-learning-from-past-struggles



❖ Zimbabwe's Gwayi-Shangani Dam Threatened by Ministry Differences

ZIMBABWE, HARARE — Discrepancies between the policies of the water and mining ministries are jeopardizing the future of the Gwayi-Shangani Dam project in southern Zimbabwe.

The Water Ministry said last week that mining activities along the Gwayi-Shangani catchment area must be discontinued due to the threat of water pollution.

However, the Mines and Mining Development Ministry says these activities must continue, as mining is the country's economic mainstay.

The clash between the two ministries comes after the government issued coal and methane gas extraction permits for along the Gwayi-Shangani catchment area.

Communities in the area have expressed concern about what this will mean for their water supply.

Illegal mining is already a major problem in the region; environmentalists have warned that the chemicals used to refine the mined minerals are making their way into groundwater.

The Gwayi-Shangani Dam, whose construction kicked off during the first quarter of this year, is part of the \$1.2 billion USD Chinese-funded Zambezi Water Project.

The Ministry of Mines and Mining Development, headed by one of President Robert Mugabe's staunch loyalists, Obert Mpofu, has dismissed residents' concerns, insisting that mining activities, both legal and illegal, are contributing to the country's economic reconstruction efforts.

Last week, these policy inconsistencies, which have come to define the troubled national unity government, came to a head when Water Minister Sam Sipepa Nkomo said all mining activities along the Gwayi-Shangani dam must cease.

Mpofu responded by telling state media that "the country's economy is hinged on mining and that thrust should not be derailed by anyone."

Environmental groups are worried that the bickering between the ministers will cause the government to disregard pollution in the country's waterways, especially in mining areas.



"There is very little that environmentalists can do in such circumstances," said Ewert Dube, a local environmentalist.

"Politics here tend to cloud priority issues, and we would not expect a responsible government to ignore concerns being raised about the pollution of water because of these mining activities," Dube said, adding, "in the long run, it is the people who suffer because of contaminated water when the economy supposedly thrives because of that same pollution."

Last month, residents in the eastern border town of Mutare, near the Marange diamond fields, protested mining activities that they said were polluting their drinking water.

The government has not yet addressed their concerns; diamond mining contributes immensely to the country's Gross Domestic Product.

The Zimbabwe National Water Authority's Pollution Control Unit, which monitors water pollution levels across the country, has not responded to queries about what it is doing to address mining pollution concerns.

"Zimbabwe's Gwayi-Shangani Dam Threatened by Ministry Differences", 24/07/2012, online at: http://www.ooskanews.com/daily-water-briefing/zimbabwe-s-gwayi-shangani-dam-threatened-ministry-differences_23533



❖ Lack of water causing child deaths in Kiribati: UN

The UN says poor hygiene and sanitation stemming from a lack of water is contributing to soaring child mortality rates in Kiribati.

UN special rapporteur on the right to water and sanitation Catarina de Albuquerque said urgent action was needed to address water shortages among the country's 100,000 population.

"I was shocked by the child mortality rate in Kiribati, which is the highest in the Pacific," she said in a statement issued during a three-day trip to inspect the situation first-hand.

"If the country seriously wants to reduce preventable deaths of children, sanitation and hygiene are two vital issues to be addressed as a matter of urgency," she said.

Ms De Albuquerque said a lack of proper sanitation facilities meant much of the population used the sea and bushes to go to the toilet, which, combined with a lack of hand-washing habits, led to the spread of disease among children.

"The current situation of water supply is unsustainable."

She said the Kiribati government needed to create a specialised department to deal with the issue and implement programs to do things such as producing affordable water from desalination plants.

Ms De Albuquerque also noted that the low-lying nation was struggling to deal with climate change and said rising sea levels had contaminated some sources of ground water.

She said the international community, particularly those countries most responsible for climate change, had an obligation to help Kiribati address its water issues.

"Lack of water causing child deaths in Kiribati: UN", 26/07/2012, online at:

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Rising tide of criticism after deadly China floods

Trucks marooned like boats on a main highway and cars submerged under water - these were scenes that Beijing residents were not used to seeing.

The rainstorm that hit Beijing over the weekend was the worst in 60 years. Officials said on Sunday that at least 37 people were killed, mainly in the hilly areas on the outskirts of the city. More than 65,000 people were evacuated from their homes.

State media were quick to trumpet the rescue efforts of the security services. Among those killed was a policeman who was electrocuted by a power cable lying in the water. He is now being hailed as a hero.

State media also ran reports of a top official meeting residents in one of the capital's worst-affected areas.

But with the water now receding, the authorities are having to contend with a rising tide of criticism.

"We don't need hero stories and touching stories anymore," wrote one user on weibo - China's equivalent of Twitter. "What we want is answers and solutions."

'Danger' maps

Much of the criticism has focused on Beijing's infrastructure and that the drainage system could not cope with the water. Others said warnings had been inadequate.

Despite the efforts that governments at different levels have made to improve their credibility, in specific cases, the public has perceived the opposite"

Global Times newspaper

According to reports, some internet users are sharing self-made maps marking the capital's flood-prone areas. One map shows 40 areas marked as dangerous.

Many internet users have also expressed concern that the actual death toll could be higher than the official 37.

"So the statistics says 170,000 livestock dead," wrote one weibo user. "I don't understand if they can count the number of dead animals, why can't they count the number of dead people?"

Beijing city spokeswoman Wang Hui at a briefing on Tuesday said that the government "will make an announcement as soon as possible" on the death toll, acknowledging the public concern.

It was announced on Wednesday that Beijing's mayor and vice-mayor had resigned, in what is likely to be a routine shuffle.



But presumably to stop a torrent of criticism both their names were blocked on weibo.

Some critics said that the drainage system could not cope with the water

Much of the criticism of the Beijing rainstorms had echoes of the high-speed train crash in Wenzhou last year. At least 40 people were killed in the accident.

The one-year anniversary of the crash coincided with the flooding in Beijing.

Ever since weibo launched three years ago it has proved an enormous hit. More than 300 million users post 100m messages a day.

The site has made China a far nosier and more critical place, with many posts challenging the official versions of events.

It is not clear what the long-term impact of weibo and similar sites will be in the country, but many argue that trust in the authorities is being eroded.

Last month, the Global Times newspaper, known for its nationalist tendencies, ran an opinion piece about a "credibility crisis."

"Despite the efforts that governments at different levels have made to improve their credibility, in specific cases, the public has perceived the opposite," it said.

Earlier this year, the authorities moved to tighten up the controls on weibo. Users now need to register using their real names.

But some argue weibo tightens the government's control over the country as local officials can no longer bury bad news.

On Wednesday, the authorities issued another severe weather warning for Beijing. They may well be bracing themselves for another torrent of criticism.

"Rising tide of criticism after deadly China floods", 25/07/2012, online at: http://www.bbc.co.uk/news/world-asia-china-18980703?utm source=Circle+of+Blue+WaterNews+%26+Alerts&utm campaign=bb79aa778b-RSS EMAIL CAMPAIGN&utm medium=email



Kenya Launches 41 New Water and Sanitation Projects, Expands Community Monitoring

nairoBi, Kenya — The Kenyan government on July 26 commissioned 41 water and sanitation projects it said would benefit 300,000 people nationwide.

The new projects were selected through a competitive process, after the Water Services Trust Fund called on registered water service providers to submit proposals for funding, the agency said in a statement.

The European Union and German development bank KfW have provided nearly \$35 million USD to finance the projects, which will be implemented in the next nine months.

They are part of a four-year initiative involving the Kenyan and German governments and the EU, aimed at ensuring that an addition 1.4 million Kenyans gain access to water and sanitation services, according to Kenyan Water and Irrigation Minister Charity Ngilu.

Ngilu said the government has scaled up financing for community-based water and sanitation projects, since "under the Water Act of 2002, the Ministry of Water and Irrigation is mandated to fund water and sewerage schemes that benefit poor Kenyans."

The Water Services Trust Fund has implemented 102 water projects and 18 sanitation projects in urban areas, benefiting 1.2 million people. Now, it is prioritizing rural areas, and so far has implemented 172 water and sanitation projects that benefit one million people.

The fund's CEO, Jacqueline Musyoki, said water companies and organized community groups are presenting viable project proposals for funding.

"Our criteria for funding these projects centers around their pro-poor focus as well as commercial viability," she said.

Meanwhile, the Kenyan government last week announced it was providing increased support to community-based watchdog groups monitoring the performance of water utilities in their jurisdictions.

The Water Services Regulatory Board urged communities throughout the country to register water action groups, which will have a legal mandate to scrutinize the operations of service providers and report malpractice.

The regulator has fast-tracked registration of water action groups in major cities like Nairobi, Mombasa and Kisumu.

Joshua Omoto, director of Kenyan rights-based agency Umande Trust, told OOSKAnews that "in places like Kibera and other big slums in Nairobi, water action groups are blowing the whistle on malpractices such as misuse of funds. These groups are documenting illegal connections and leakages that are rampant in informal settlements."



The formation of new citizen watchdogs dovetails with moves to decentralize water supply services under the new constitution.

"Citizen involvement in running of water companies is not a new concept in the country," Water Services Regulatory Board CEO, Robert Gakubia told OOSKAnews.

"It has been entrenched in the Water Act of 2002, and what we are currently doing is to rope in a critical mass of grassroots watchdogs to monitor and report performance of service providers in their localities."

He said the board has piloted the MajiVoice mobile platform in various parts of the country "to enable consumers to reach their water companies through a text message. Feedback from the utility will enable the regulator evaluate their general performance."

"Kenya Launches 41 New Water and Sanitation Projects, Expands Community Monitoring", 27/07/2012, online at: http://www.ooskanews.com/daily-water-briefing/kenya-launches-41-new-water-and-sanitation-projects-expands-community-monitorin



Azersu Begins IDB-Funded Projects

BAKU (Trend News Agency) — Azersu" (Azerbaijani water operator) began preparations for implementing the project of water supply and sewerage system reconstruction in Dashkesan, Gadabay, Gazakh, Samukh, Astara and Tartar regions of Azerbaijan, Azersu said on Friday. The project will be implemented with joint funding from the Azerbaijani government and the Islamic Development Bank within the 'National water supply and sewerage system' project. According to Istisna agreement, signed between the Azerbaijani government and the IDB, the bank allocated \$200.05 million for the project implementation. Azersu has already begun preparatory work to attract local and foreign companies to implement this project. A tender procedure will be launched soon. After this project is implemented, 320,000 people in six regions will be provided with permanent drinking water.

"Azersu Begins IDB-Funded Projects", 27/07/2012, online at: http://www.ooskanews.com/daily-water-briefing/azersu-begins-idb-funded-projects_23608



Drought Leaving 2.6 Million Afghans Hungry

MAZAR-E-SHARIF (The Gulf Today) — An estimated 2.6 million Afghans are facing food shortages after one of the worst droughts to strike northern Afghanistan in a decade, according to Afghan officials and aid agencies. Already living in poverty in a country at war, many have been left destitute by the drought, which has affected 14 of Afghanistan's 34 provinces — all in the north. Wells have dried up. Hundreds of children have been treated for malnutrition. Families are selling their animals at below-market prices. People are moving to cities to try to find food, water, work and, in some cases, a refuge from the fighting. The Afghan government and aid agencies are racing to help them before snow blocks access to remote areas. Rahmatullah Zahid, disaster coordinator in Balkh province, which has been hard-hit by the drought, said he is not worried yet about people starving to death, but he wonders how people will survive the winter, especially in remote areas. "If the weather gets very, very cold in the remote areas and if the aid doesn't come, those families will be in danger of starvation," he said. Beyond the relief effort, aid officials are trying to figure out how to end a vicious cycle of drought, drought relief and drought again in an area of the country that has suffered water and food shortages in eight of the past 11 years. Instead of trying to cultivate chronically dry land, perhaps farmers could grow almonds or grapes, which require less water than wheat, or industry could be lured to the area to extract its prevalent gas and oil.

"Drought Leaving 2.6 Million Afghans Hungry", 27/07/2012, online at: http://www.ooskanews.com/daily-water-briefing/drought-leaving-26-million-afghans-hungry 23610



Uzbekistan Looks to Malaysia as Water Policy Model

Malaysia, KUALA LUMPUR — Malaysia's water policy offers Uzbekistan a good model for working toward adequate and equitable use of water resources in Central Asia, according to Uzbek Deputy Minister of Agriculture and Water Resources Farkhod Khakimov.

"Next year, Uzbekistan will invite its Malaysian counterparts to share experiences on how to enhance cooperation to improve water usage, as well as to develop a mechanism to maintain constant focus on water management," Khakimov told Bernama, Malaysia's national news agency, earlier this week.

His comments came following a roundtable discussion on "Uzbekistan's View on Water Resources of Trans-boundary Basins as a Downstream Country," held at the Uzbek embassy in Kuala Lumpur.

Participants discussed Uzbekistan's difficulty overcoming problems posed by the growing number of hydropower stations in neighboring countries, which the Uzbek government says have led to artificial floods in the winter and increased water deficits in the summer.

Khakimov said the cause of the problem was irrigation systems being replaced by hydropower stations in the upper watershed countries.

With more power being generated by hydroelectric complexes and dam projects from neighboring countries, the amount of water flowing into Uzbekistan has been severely reduced, leading to serious water management and environmental issues, he said. The country has just two main rivers.

Khakimov, who was in Malaysia for an international conference organized by the Inter-Islamic Network, added that his country has adhered to international water laws, even participating in the two main United Nations conventions on water.

"Uzbekistan Looks to Malaysia as Water Policy Model", 27/07/2012, online at: http://www.ooskanews.com/daily-water-briefing/uzbekistan-looks-malaysia-water-policy-model 23599



❖ How the Next 12 Months of Xayaburi Dam Construction Will Affect the Mekong River

The Xayaburi Dam site in Laos is abuzz with activity these days. Thousands of laborers and dozens of construction vehicles work around the clock to finish the dam on schedule by 2019. Access roads, worker camps, and transmission lines have been built. Villages are being resettled. The river has already been widened at one point, and a dike cuts into the river at another point. One of the project's lead engineers, the Pöyry Group, told a delegation of visiting diplomats last week that the coffer dam—which diverts the river while the permanent dam is built—will be completed by next May. Soon after that, the dam itself will begin to appear.

Laos' rapid progress on the dam worries its neighbors. The Mekong River is a shared resource, and what happens upstream in Laos can affect people downstream in Thailand, Cambodia, and Vietnam. According to the 1995 treaty that governs use of the Mekong River, the governments of Cambodia, Laos, Thailand, and Vietnam must jointly decide if the Xayaburi Dam will go forward. No decision has yet been reached. Cambodia and Vietnam have both requested that transboundary impact studies be completed before a decision is made, but Laos has said it will not conduct these studies. A regional diplomatic crisis may soon erupt.

Construction hasn't started?

Proceeding with construction at this early stage would be a clear violation of the 1995 Mekong

Agreement and international law. Not to worry, Laos spokesperson Viraphonh Viravong told the

Bangkok Post last week. "We have not started working on any construction on the Mekong River that is permanent."

Yet the 1995 Mekong Agreement makes no distinction between "permanent" and "temporary" construction activities along the river. It worries instead about any activities that will cause "harmful effects" to the river's ecosystems. Similarly, international law (the rules that govern how states treat one another) kicks in when the harmful effects are likely to be transboundary, as they are in this case.

As it turns out, many of the construction activities already underway at the dam site are likely to have harmful effects on the Mekong River.



Yes, construction affects the river

As the Mekong River Commission noted in its <u>2011 technical review</u> of the proposed Xayaburi Dam, "impacts during the construction phase are equally as important as those during dam operation." (p. 32) Based on experiences with other dams, here are just a few of the impacts we might see in the next 12 months if construction continues:

- The coffer dam and other structures will divert the river, which could prevent fish from migrating past the dam site and block sediment flows downstream.
- As extra sediment becomes loosened during construction and mixes into the water, it could change water quality, habitats, and the ability of fish to breathe. This could lead to declining fish populations.
- Loosened sediment could bury and harm fish eggs.
- Pollution from the construction site could affect water quality and alter ecosystems, harming fisheries and agriculture downstream.
- Disturbances to the river could affect plankton and microorganisms that are important to the stability of the river's ecosystem.
- Resettlement of local communities could create food security problems, <u>based on experiences</u>
 in the first resettled village.

What happens in Laos in the next 12 months will not just be localized. The construction phase is likely to have significant impacts that can be felt downstream in neighboring countries.

Pöyry, CNR, and the art of making scientific-sounding promises

Yet we still do not know the full extent of the harm that the Xayaburi Dam's construction phase will cause. Laos' consultants <u>Pöyry Group</u> and <u>Compagnie Nationale du Rhône (CNR)</u> do not know either. Despite Cambodia's and Vietnam's formal requests over one year ago, Laos has still not studied the baseline conditions of the river. How do fish behave in this part of the river, for example, and how do people downstream depend on these fish? It is simply not possible to understand the full extent of the dam's impacts without first gathering this data. This is one reason why many scientists



are skeptical about the unequivocal promises by Pöyry and CNR that the project will have minimal environmental impacts.

The 1995 Mekong Agreement is not perfectly written by any means, but is the best framework the region's governments have for reaching a mutually acceptable solution. Where there are gaps, international law can provide guidance—such as the requirement to assess transboundary impacts before proceeding with any construction.

The time has come for the Mekong governments to bring Laos back into compliance with the 1995 treaty, and to return to the structure that the treaty provides. The first step, as the Cambodian government has already requested, is for all construction activities on the Xayaburi Dam to stop while further impact studies are carried out.

Ten more dams have been proposed for the Mekong River, eight of them in Laos. No one wants to repeat the chaos of Xayaburi, or to learn a few years from now that we could have prevented all of the harm that the Xayaburi Dam will soon bring.

"How the Next 12 Months of Xayaburi Dam Construction Will Affect the Mekong River", 26/07/2012, online at: http://www.internationalrivers.org/blogs/267/how-the-next-12-months-of-xayaburi-dam-construction-will-affect-the-mekong-river



❖ Damming the future? Livelihoods at stake on Mekong River

NONGKHAI PROVINCE, Thailand and XAYABURI PROVINCE, Laos — Although his family has lived for generations beside the Mekong River, Itthapon Kamsuk thinks he might soon have to move.

During the dry season, from March to May, Kamsuk's village in Nongkhai province in northeastern Thailand routinely runs short of water, and big fish are growing scarcer.

"The water level is already unpredictable, because of the dams in China," the 45-year-old said. "Before dam construction, we lived peacefully. We could have fish all the time."

Now, another hydroelectric dam is being built on the Mekong in a deal between the Lao government and a Thai construction company, despite an international agreement to protect water rights along the river and promises by Thai and Lao leaders to pause the project for further study.

The 1,260-megawatt Xayaburi is the first of 11 proposed mainstream dams that will affect agriculture, fishing and cultural heritage from its location about 100 miles upstream from Kamsuk's village in northeast Thailand, through Cambodia to the Mekong River delta in Vietnam — the fertile heart of the world's second largest rice exporter.

The dam will directly affect more than 202,000 people along the river, estimates International Rivers, a US-based NGO, including fishermen and farmers. Dams disrupt water flow, killing fish habitats and disrupting migratory breeding patterns. They also disrupt sediment flow, which provides nutrients for crops downstream.

The Thai construction company, Ch. Karnchang, expects a 12-13 percent annual gross return on a \$2.4 billion investment over its 29-year concession from the Lao government. The government, which will own the dam, also stands to profit handsomely by selling the electricity Xayaburi produces — largely to Thailand.

But the environmental and human costs of the project may far outweigh revenues that Laos, one of Asia's poorest countries, expects to reap from its dams.

www.ORSAM.org.TR



The only wide-ranging report on the project, a cost-benefit analysis from Portland State University, estimated that when loss of livelihood was considered, the development went from a \$33 billion revenue source to negative \$274 billion liability.

Sparse Living

Livelihoods along the river in Laos and Thailand consist mainly of fishing and agriculture, with some panning for gold.

"My mother has a piece of land she farms for self-consumption. If there is any extra, we sell it," Kamsuk said. He owns a small food shop.

In 2009, the average salary in the northeastern provinces of Thailand was 118,200 baht (US\$3,735) per year, according to DBS Bank. The region has the lowest per capita GDP in Thailand — about one-seventh that of metropolitan Bangkok.

The area around the dam site itself, northwest of Vientiane and due east of Chiang Mai in Thailand, is sparsely populated. Villages of a couple hundred people sit half-shrouded from river view by the jungle.

Every few kilometers, a solitary fisherman clings to the rocky bank, methodically dipping a net attached to two long bamboo poles into the current.

Some 2,100 of these Laos will be resettled away from the site.

Villagers still in their homes say they expect to move next year, but two villages were relocated in January. The new houses already have termites, and photos from the resettlement show gaps between boards that were nailed down still wet.

The resettlement area has little agricultural land, no river access, and no forests for foraging, said Teerapong Pomun, director of Living River Siam, one of the groups bringing the lawsuit.

"The are mostly fishing and agricultural people. They had a better life in the village," he said. "They have only 0.75 hectares, and it is too late to plant for the growing season. They just sit at home."



According to International Rivers' Ame Trandem, relocated villagers were promised compensation,

but that deal has already gone awry.

"They were told they would be compensated for everything, now it is just teak and fruit trees," she

said.

Downstream, Kamsuk is unlikely to get any compensation, so earlier this month he made the journey

from Nongkhai to Bangkok, about 10 hours by bus, for a meeting with the Network of Thai People in

Eight Mekong Provinces, a coalition of civil groups fighting the dam's construction.

Next month the coalition will file a lawsuit against the Energy Generating Authority of Thailand

(EGAT), which agreed to purchase 95 percent of the dam's projected 7,200 gigawatt hours per year.

The network alleges that EGAT failed to adequately notify the public or get public comment before

signing the deal with Ch. Karnchang in October. The suit points out that no environmental review for

the impact on Thailand has been done.

"None of Thailand's agencies have made any move to prevent the impacts," said Sor Rattanamanee

Polkla, the lead attorney for the suit.

The World Wildlife Fund says a study on a similar project on a Mekong tributary in Thailand, found

that 85 percent of fish species were affected, with 56 species "disappearing entirely" and "reduced

catches" for another 169 species. The WWF predicts the dam would spell extinction for the Mekong

giant catfish.

The change in water fluctuations from the dams in China has already damaged the fish population in

the Mekong itself. Most of the big fish are gone, Kamsuk said, explaining why he has joined with a

group of civic organizations to bring a lawsuit against the Thai state agency that agreed to purchase

most of the dam's energy.

Uneasy Neighbors



In 1995, Laos, Thailand, Vietnam and Cambodia signed an agreement pledging "to cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin."

Under this framework, Laos has entered a consultation process with its neighboring countries over the Xayaburi Dam, but the agreement is somewhat less than binding.

"Laos is not seeking legal approval," said Surasak Glahan, a spokesman for the intergovernmental Mekong River Commission, which estimates that 450,000 people will be affected. "The Mekong Agreement says the countries should reach consensus, but it doesn't say a country cannot go forward."

In a visit to the region earlier this month, US Secretary of State Hillary Clinton urged Laos to adhere to spirit of the agreement and to further study the dam's impact.

"The Mekong River Basin is one of the world's most productive ecosystems. It's really a miracle of the way it operates in this region. Millions — tens, hundreds of millions of people — depend directly or indirectly on it for their livelihoods," Clinton said. "Some studies have explored the benefits of generating electricity, but questions — serious questions — remain about the effects on fisheries, agriculture, livelihoods, environment and health."

Cambodia has already sent a letter to its northern neighbor, asking that construction be halted, and Vietnam suggested postponing the plan for a decade, while additional environmental studies were carried out.

In the face of this outcry, Ch. Karnchang has publicly said it is only doing preliminary work, but a visit to the dam site in early July showed a flurry of activity — not only on access roads and offices, but also on a flattened piece of land jutting into the river and on the hillside adjacent to the dam site.

Executives at EGAT and Ch. Karnchang did not respond to requests for comment on this story.

The dam is creating tension between the Southeast Asian nations, Living River Siam's Pomun said.



"You can see that people are already pointing to the Laos government," Pomun added. "If the problem happens in Laos, it will become a big issue for the ASEAN community. Right now, even though they haven't completed the project, Ch. Karnchang has made a lot of money by selling stocks."

"Damming the future? Livelihoods at stake on Mekong River", 25/07/2012, online at: http://www.alaskadispatch.com/article/damming-future-livelihoods-stake-mekong-river



Thai villagers to fight Lao Mekong dam in court

The inhabitants of Ban Pak Ing Tai, a leafy village in Thailand's far north nestled between the mighty Mekong River and one of its tributaries, know only too well what **dams** can do.

This used to be a fishing village but nowadays local men are more likely to be found toiling away in corn fields or working as labourers than out on their boats.

They say vital sources of their food, water and livelihoods – from fish and riverweeds to seasonal wetlands for agriculture – are fast disappearing due to Chinese dams on the Mekong, which flows through six countries.

As a result, they vehemently oppose plans for big hydropower projects that would involve building dams on the Mekong in Laos, largely aimed at selling electricity to Thailand.

Village headman Phoomi Boonthom, 54, only fishes in his spare time now. Despite more than four decades of experience, he catches less than a kilo of fish after two sessions on the river on a hot June afternoon in peak season.

"This year's been the worst in terms of catch. In the past, I used to get 10 kilos per round," he told AlertNet, displaying a small box with some ice and fish.

The water level is too low and fluctuates too sharply for the fish to migrate, he said, putting the blame firmly on China.

"They built dams and blocked the water," he said. "I also saw news on TV that if (Laos) finishes the Xayaburi and Pak Beng dams, there will be lots of problems, from here all the way down to Vietnam."

The Mekong, flowing from the Tibetan plateau to the South China Sea through China, Myanmar, Thailand, Cambodia, Vietnam and Laos, is the world's 12th largest river.

The Mekong River Commission says its fisheries have an estimated value of \$5.6 to \$9.4 billion a year, and provide food and livelihoods for some 60 million people living along its banks.



Experts say fish and other aquatic animals provide 40 to 80 percent of animal protein in local diets. And more than 80 percent of the populations of Cambodia and Laos, as well as communities in large areas of Thailand and Vietnam, meet their water needs from the Mekong basin's rivers.

First lawsuit of its kind

Much is at stake – and that is why, in an unprecedented action, Thai villagers from eight Mekong provinces are planning to take the government to court over the controversial \$3.5 billion, 1,260-megawatt Xayaburi hydropower project in neighbouring Laos, which plans to export 95 percent of the power it produces to Thailand.

The dam is to be part-financed by Thai banks and its main developer is Thailand's second-biggest construction firm, Ch Karnchang Pcl.

The plaintiffs accuse the state-run Electricity Generating Authority of Thailand (EGAT) of agreeing to purchase energy generated by the Lao scheme without an adequate assessment or public consultation, as required by Thai law.

"This is the only way we can fight (these powerful interests)," said Niwat Roikeaw, director of the Chiang Khong Conservation Group in northern Thailand's Chiang Rai province, upstream of the planned dam. "We used reason and tried to present everything that could happen (because of the dam) but they didn't listen."

Niwat, representing Chiang Rai – and villagers like Phoomi – is part of the Thai's People Network of Eight Mekong Provinces which is threatening to file a lawsuit on August 7 unless the agreement to purchase power from Xayaburi is cancelled.

"This is the first regional legal case on a transboundary project involving overseas investment," said Pianporn Deetes, campaign director for environmental group International Rivers in Thailand.

"We hope it will set a new 'standard' for overseas investment from Thailand and the Mekong hydropower... for social and environmental responsibility," she added.



The EGAT declined to comment on the lawsuit, and Ch Karnchang – which has a 57 percent share in the Xayaburi project – did not respond when contacted by AlertNet.

Political risks

Xayaburi is the first of a dozen dams planned by landlocked, impoverished Laos, which has ambitions to become the "battery of Southeast Asia" by exporting most of the power generated by its hydro projects.

But critics say Xayaburi's Thai developer has not properly assessed the dam's social and environmental impacts, which could include damage to fish migration routes, farm land, food security and local livelihoods.

A report by the US-based Stimson Center, Mekong Turning Point, said the company's Environmental Impact Assessment (EIA) identified the area for study as extending only 10 km downstream, when the impacts would clearly reach much further.

"(Xayaburi) is not only about water flows and destroying migratory fish population, but also upstream dams holding nutrient-rich silt that (Vietnam's) Mekong delta needs," said the report's author Richard Cronin, a senior associate with the Stimson Center.

"Cambodia is worried about the Tonle Sap Lake and millions of Cambodians who depend on the fisheries for food and livelihood. You're talking about people already living on \$1 or \$2 a day losing everything," he added.

Cronin said such cross-border consequences mean the debate over Xayaburi and other Mekong dams goes far beyond basic trade-offs involving water and food.

"Laos has the sovereign right to go ahead, but it's a question of what's the cost going to be, particularly in terms of relations with your neighbours and regional stability?" he said.

Xayaburi has already angered Cambodia's government and upset Laos's biggest ally, Vietnam, over its possible downstream effects.



In December, under pressure from neighbouring countries, Laos agreed to put the project on hold, pending further studies led by Japan.

Nonetheless, International Rivers said in June it had witnessed Ch Karnchang resettling villagers, building a large retaining wall, and undertaking dredging to deepen and widen the riverbed – a claim denied by official media in Laos.

In mid-July, Laos declared publicly for the first time that work on the dam had been halted.

The Mekong River Commission has recommended a 10-year moratorium, but it is unclear how long Laos is prepared to wait.

"Water grabbing"

For the communities who rely on the Mekong's water, ecosystems and biodiversity for survival, preserving those natural assets is paramount.

But for investors and energy-hungry governments, the electricity that could be produced by harnessing the river's waters in hydro schemes is an opportunity to generate profits and economic growth.

Nathanial Matthews, a researcher with London's King's College, said hydropower development in the Mekong region amounts to "water grabbing", which he defines as "when powerful actors take control of water resources for their own benefit".

The benefits are rarely shared with local people, he told AlertNet. They tend to be ethnic minorities and vulnerable people relying on the river's resources who are more likely to experience any negative effects.

China, for example, has been accused of changing the Mekong's natural hydrology and causing the devastating 2008 floods in northern Thailand by releasing water from upstream dams and destroying rapids to facilitate dam construction and boost trade.



Some activists and academics also say Thailand's electriticy authority is overestimating future demand and emphasising the need for new capacity rather than efficiency gains.

The 12 dams planned for Laos would meet only around 6 percent of Thailand's total energy demand by 2020 – an amount the southeast Asian nation could save through reasonable energy efficiency measures, according to the Stimson Center's Cronin.

"If dams are going to be built, which I think is inevitable to an extent, we need to make sure the costs don't outweigh the benefits," Matthews said. "It's not about being anti-dams. It's about better dams."

"Thai villagers to fight Lao Mekong dam in court", 26/07/2012, online at: http://www.eco-business.com/features/thai-villagers-to-fight-lao-mekong-dam-in-court/



Work progresses on Mekong dam?

VIENTIANE, Laos, July 24 (UPI) -- Construction is proceeding at the controversial proposed \$3.8 billion Xayaburi Dam site on the Lower Mekong River in northern Laos, observers say, despite calls for the Laos government to put the project on hold until further studies are conducted into the dam's impact on lower Mekong communities.

About 95 percent of the dam's 1,260-megawatt capacity is intended for export to Thailand, which is financing the project. Thailand would operate the dam, turning it over to Laos after 30 years.

The Lower Mekong supports nearly 60 million people who depend on it for their livelihood, says the World Wildlife Fund.

While the Laos government says that only preparatory work on the dam has been conducted, the Bangkok Post reported that work is still under way at the site, including a dike straddling the Mekong River that locals say is obstructing the passage of boats.

The site also includes paved roads and constructed buildings for workers. Checkpoints have been set up on the road leading to the work camps, barring relocated villagers and outsiders from entering, the Post reports.

Cambodian Foreign Minister Hor Namhong said last week that the dam could threaten fish populations in the Mekong.

"We have already informed the government of Laos about the consequences," he said, Cambodia's The Phnom Penh Post reports.

Speaking July 13 during a visit to Phnom Penh, U.S. Secretary of State Hillary Clinton, noting that "tens, hundreds of millions of people" depend directly or indirectly on the Mekong River Basin for their livelihoods, said it is also extremely vulnerable to the effects of climate change and infrastructure development.



"That's why it's important that national and regional strategies be based on sound scientific assessments of any impact that could be forthcoming," Clinton said, adding that the Mekong River Commission -- comprised of Laos, Thailand, Vietnam and Cambodia -- is the "best forum for facilitating these assessments."

Clinton said the United States was prepared to commit up to \$1 million to support the commission studies to look at "among other things, the potential impact of future dams on the main stem of the river."

"Laos' decision to proceed unilaterally with the Xayaburi Dam is already (a) clear violation of the 1995 Mekong Agreement and its failure to act in good faith toward its neighboring countries is a violation of international law," stated California environmental group International Rivers in its most recent blog.

International Rivers says construction will disturb the riverbed enough to "significantly affect fish populations and the flow of sediments downstream" and make it impossible to collect baseline data and conduct accurate impact studies.

"Work progresses on Mekong dam?", 24/07/2012, online at: http://www.upiasia.com/Top-News/2012/07/24/Work-progresses-on-Mekong-dam/UPI-28231343130869/



❖ Japan, US Aid Agencies Consider Africa Water PPP Fund

united states, WASHINGTON DC — Japan's International Cooperation Agency (JICA) and the US Agency for International Development (USAID) are considering creating an Africa water private-public partnership fund, according to JICA President Dr. Akihiko Tanaka.

"We have launched a series of consultations with USAID on opportunities for public-private partnerships, and these conversations are starting to bear fruit," Tanaka said at a Center for Strategic & International Studies (CSIS) event in Washington, DC, on July 23.

"In particular, we are considering establishing an Africa water PPP fund with USAID Development Credit Authority to expand access and attract private investment to Africa's water sector," he added.

The event, "Prospects for US—Japan Cooperation in Development," focused on three areas in which the two nations have already established strong working relationships -- global health, food security and private-public partnerships -- and five geographical regions where there could be further cooperation.

"While the U.S. and Japan have ongoing productive partnerships in these fields, I believe we can go even further. I see five challenges for deep engagement -- China, Afghanistan, Myanmar, Asia-Pacific region and post-MDGs (Millennium Development Goals) agenda," Tanaka said.

Since 1993, when the US and Japanese governments signed a "milestone" agreement on development cooperation, their joint efforts "most prominently focused on fighting infectious diseases and increasing access to safe drinking water," according to the JICA president.

However, this relationship now is really "beginning to blossom" and both are "finding many opportunities to work together," he added.

Tanaka said fluctuating climate and food price spikes, along with continued global hunger, has shown both nations that "more needs to be done on food security."



"Here, too, we have found 'complementaries.' Japan's strength, I believe, lies in training agricultural workers to increase agricultural productivity and manage water resources," while the US has strengths in storage, he said.

The two development organizations, JICA and USAID, recently signed an agreement to improve food security in Africa, focusing on Tanzania, Ghana, Rwanda and Senegal.

As for the five areas of deep cooperation, China has transitioned from a nation that needed development assistance to one that can give development assistance, making it an emerging donor that Japan and the United States should "continue to engage" to further "mutual understanding, share best practices and advance the global development agenda."

Tanaka said he believes strongly in US and Japanese development cooperation, a relationship that is more mature today than in the 1990s, and that he will "strive to upgrade the level of cooperation between Washington and Tokyo."

"By working more closely together, I believe we can accelerate progress on today's global challenges to create a better future for all," he said.

"Japan, US Aid Agencies Consider Africa Water PPP Fund", 25/07/2012, online at: https://mail.google.com/mail/?hl=tr&shva=1#inbox/138bf2395dc1fcc1



❖ GCC to invest \$100b in five years to combat water shortage

GCC governments have earmarked more than \$100 billion in their water sectors between 2011 and 2016 to improve desalination technologies involving solar energy, and maximise on wastewater treatments and recycling.

According to a recent report by Ventures Middle East, population growth and deterioration of water quality has prompted GCC governments to embark on major spending to combat water scarcity and ensure sustainable resources for the future.

A recent study by Booz & Company also suggests that the GCC countries are likely to invest more than \$100 billion in their water sector up to 2016 even as the region faces water over-consumption with per capita higher than the global average highlights the seriousness of excess water consumption in the GCC region.

On a per capita basis, Saudi Arabia and the UAE consume 91 per cent and 83 per cent more water than the global average, and about six times more water than the UK, Booz & Company said in its report a few months back.

Qatar and Oman are also above the global average for water consumption, despite their desert climates, the Booz study shows.

To address the issue of deterioration of water quality, a European company specialising in water and wastewater treatment technologies has introduced a series of new product lines tailored to suit the water quality and operating environment in the Middle East.

Toray Membrane Europe will showcase its latest water treatment technologies including reverse osmosis, nano-filtration, micro-filtration and ultra-filtration technology at the upcoming Power + Water Middle East exhibition, taking place from October 8-10 at the Abu Dhabi National Exhibition Centre.

"The main focus of our water and wastewater treatment technologies is on energy saving, plant efficiency and performance," said Rolf Richard Keil, deputy general manager of the Middle East



branch at Toray Membrane Europe, one of the few companies with expertise across the entire spectrum of high performance water treatment membranes.

According to joint research by the Euro Arab Organisation for Environment, Water and Desert Ranches and the University of Jordan, the Arab world is likely to witness a water crisis around 2025 unless effective steering mechanisms for sustainable water management and measures to reduce the agricultural consumption of water are applied.

The UAE has planned several wastewater treatment and recycling projects to improve water management practices in order to meet rising demand of this scarce and costly resource. Abu Dhabi will add more than 30 million gallons per day of desalination capacity to its water network following a green light for a power and water plant extension at Mirfa.

Abdulla Saif Al Nuaimi, director general of Abu Dhabi Water and Electricity Authority said water is one of the scarcest resources in the Mena region and that Gulf countries are among the world's top ten producers of desalinated water.

"Desalination currently provides two-thirds of the water requirements in Mena, and the new urgency and high priority assigned by governments to investments across the water desalination sector in the region is therefore not a surprise."

Elsewhere in the UAE, Fewa, the electricity and water authority for Ajman, Ras Al Khaima, Umm Al Quwain and Fujairah, will implement ultra-filtration as a pre-treatment step for the first time at its Al Zawrah seawater reverse osmosis plant in Ajman to produce 115 million litres per day of pre-treated seawater to feed the reverse osmosis membrane system.

Qatar is also looking to increase its capacity in both the wastewater and water areas. In doing so it is considering new technological processes through independent water and power projects, the largest being the Ras Girtas project, currently under construction in the Ras Laffan industrial complex.

Meanwhile, the Public Authority of Electricity and Water in Oman plans to build strategic water storage reservoirs in Muscat in order to overcome a crisis situation if desalination plants are



disrupted, while the Kuwait Ministry of Electricity and Water will construct two reverse osmosis desalination plants in Doha, Kuwait that will produce nearly 50 million gallons of water per day.

"The water sector is a major challenge for GCC states which are among the most water scarce countries in the world," said Anita Mathews, Exhibition Director for Power + Water Middle East. "The problems of water shortage and water security are now being addressed and the relevant factors which influence the water resources identified."

According to Booz & Company study, desalination provides two-thirds or more of the potable water used in the UAE, Kuwait, Qatar and Bahrain, and will continue to play a huge role in the GCC's water development efforts.

But desalination carries enormous economic and environmental costs. Despite a more than fivefold improvement in efficiency since 1979, the \$1 it costs to desalinate a cubic metre of seawater is still a relatively expensive way of producing potable water.

Seawater desalination is an energy-intensive process, consuming eight times more energy than groundwater projects, and accounting for between 10 per cent and 25 per cent of energy consumption in the GCC. This adds to the problems of energy intensity already plaguing the region. The desalination process also discharges salt back into the Arabian Gulf and other oceanic sources, jeopardising their marine life and introducing new environmental risks, the Booz & Company study said.

"GCC to invest \$100b in five years to combat water shortage", 23/07/2012, online at: http://www.khaleejtimes.com/biz/inside.asp?xfile=/data/uaebusiness/2012/July/uaebusiness_July247.xml§ion=uaebusiness



❖ New water policies are key to tackling scarcity – SIWI analysts

LONDON (AlertNet) - Reining in "water anarchy" due to inadequate regulation is one way to avoid the threat of water scarcity and secure resources for the future, according to a water expert at the Stockholm International Water Institute (SIWI).

<u>Hakan Tropp</u>, director of the United Nations Development Programme water governance facility at SIWI, told AlertNet in an interview that governments should respond to consumer trends in developing countries by instituting new water management policies to avoid future shortfalls.

In a separate interview, <u>Ana Cascao</u>, a programme manager with SIWI who specialises in hydropolitics, said that managing controversy between countries while putting in place a proper balance of water and energy use will help protect water resources from political risks.

Q: How do you see water scarcity reshaping the world by 2050?

We can't take a business as usual approach. That's been going on for too long.... In many places in the world, water use is already at very unsustainable levels... Increasingly, we have to look at the demand side and also the governance side of water and strengthen institutions – at times really make the hard choices in water resource allocation and re-allocation ... It's also an issue of getting the priorities right.

I just came from India some weeks ago where the whole country is really dependent on groundwater for food production as well as water supply and sanitation services. And now, in many states you have rapidly falling groundwater levels.

This is an unsustainable use of water which can't continue in the long run. It's basically like a groundwater anarchy situation. If you have land rights you also have the right to pump out as much water as you can basically – so there are very few restrictions and very few regulations on groundwater.

We have different types of of scarcity -- it can be physical scarcity like in the Middle East where there is very little water available ... although there are groundwater resources, they are already being exploited to an unsustainable level – so there we have a resource that will become critical.

But in African countries or Latin America we have a type of scarcity that is more induced by mismanagement. At the global level there are water resources available for everybody right now in 2012. I'm an optimist by definition and I think that with good policies and good institutions in place it will be possible to improve the access of people around the world to water and food.



Of course, I don't want to paint a rosy picture and tell you that everything is working and that by 2050 we won't have any problems ... climate change might be a factor, the new factor that we don't really know.

Q: Which areas are of most concern and why?

A: Hakan Tropp:

Many parts of the Middle East and Northern Africa for many years now have faced water shortages. These regions will continue to be water scarce and will face lots of challenges in the future. India, for example, where you have a population that is increasing fairly rapidly ... is a country that's made great economic progress in the past 15 years.

In a country like India you have very strong drivers – very rapid increase in water demand. Where you have growing populations, you also have changes in consumption preferences. As people move to cities they will start to demand more things in life – they want to have a modern, urban lifestyle. Industry in India is growing rapidly.

In china, as the economy grows there is a tendency to consume more meat. And that is very much more water intense to produce as compared to wheat and rice. To produce one kilo of beef you need 10 times the amount of water and energy as compared to producing one kilo of rice.

In India, we'll be facing situations of decreasing water supply due to climate issues as well as increasing demands for water and this is coupled with situations of insufficient management systems, very insufficient governance systems – it's like a triple squeeze on water: – water supply is decreasing, demands are on the increase at the same time institutional systems cannot handle the increases in an acceptable way.

I can also see some of these things playing out around the Nile Basin. I think in upstream countries -- in Egypt -- in the near future it's likely they'll start to demand more water from the Nile ... This is part of the whole political dynamics around the Nile, the security dynamics around the Nile. You also have a new country -- South Sudan – this is also something that can make the collaboration over Nile waters even more complex.

A: Ana Cascao:

One is the Middle East -- it's not just because of water scarcity, but also because in political terms it's a region that's much more problematic because of other issues - it's possible to have a water war or a conflict over water in the Middle East. And we see that between Israel and Palestine [Palestinian Territories] for example, water is not the main issue of conflict, but can become a source of conflict among other issues.



Turkey has already reached the red line of availability and demand -- they can't meet the demand. Also India and China are becoming big consumers and can't find water to meet demand at home. So they are buying in Africa where there is water supply and the land available to grow food ... what we see now is that millions of acres of land are being leased to foreign companies in Africa to produce food and cattle.

Two critical regions are the Middle East and North Africa, and on the other hand, Sub-Saharan Africa, which has water resources that are not being used for its own population.

The Nile is the longest river in the world. It serves 11 countries. So there's water available for different uses, but at the core of water problems is a political one – if agreements were in place for better management of the Nile there wouldn't be problems in 2050 because there is enough water available. But if each country continues developing its borders according to national objectives and national interests then there might be a conflict of interest.

Q: What are the most serious factors driving water shortages?

A: Hakan Tropp:

You have growing populations. You have urbanisation processes escalating in many developing countries. You have the fact of changing food preferences as economies are developing and growing.

In many cases you have completely inadequate governance systems dealing with situations where there is no regulation. It's close to being water anarchy.

For most developing countries these issues will be more important than climate change impact over the next forty to fifty years ... If we don't get a handle on that then it will be so much more difficult to deal with climate change impact.

A: Ana Cascao:

Take China and India – economically they have been developing very fast and people want more. They want more things. They want more energy. They want more food. They have more needs and this leads to a bigger water requirement. Increasing standards of living in the southern part of the world is the major factor for water shortage.

Environmental issues are very big -- by deteriorating the environment we will have an impact on water availability in the future. The kind of lifestyle that we have in Europe and the United States -- if everybody were to consume as much water as we do in western countries then there will not be enough.



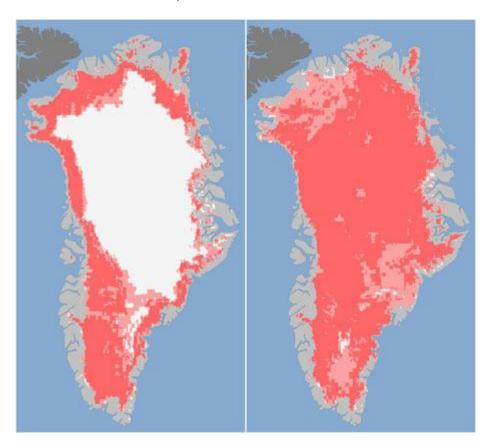
We have to have coping mechanisms to deal with this shortage. That means to demand less, so to consume less. And we can do this as individuals. As an individual I can decide to consume less but there should also be policies at national, regional, global level that will decrease the amount of water being used in certain sectors. We can't deny countries that are now in the process of developing their economies.

"EXPERT VIEWS: New water policies are key to tackling scarcity – SIWI analysts", 24/07/2012, online at: http://www.trust.org/alertnet/news/expert-views-new-water-policies-are-key-to-tackling-scarcity-siwi-analysts



Greenland ice sheet melted at unprecedented rate during July

Scientists at Nasa admitted they thought satellite readings were a mistake after images showed 97% surface melt over four days



The <u>Greenland</u> ice sheet melted at a faster rate this month than at any other time in recorded history, with virtually the entire ice sheet showing signs of thaw.

The rapid melting over just four days was captured by three satellites. It has stunned and alarmed scientists, and deepened fears about the pace and future consequences of <u>climate change</u>.

In a statement posted on <u>Nasa</u>'s website on Tuesday, <u>scientists admitted the satellite data was so striking</u> they thought at first there had to be a mistake.

"This was so extraordinary that at first I questioned the result: was this real or was it due to a data error?" Son Nghiem of Nasa's Jet Propulsion Laboratory in Pasadena said in the release.

He consulted with several colleagues, who confirmed his findings. Dorothy Hall, who studies the surface temperature of Greenland at Nasa's space flight centre in Greenbelt, Maryland, confirmed that

www.ORSAM.org.TR



the area experienced unusually high temperatures in mid-July, and that there was widespread melting over the surface of the ice sheet.

Climatologists Thomas Mote, at the University of Georgia, and Marco Tedesco, of the City University of New York, also confirmed the melt recorded by the satellites.

However, scientists were still coming to grips with the shocking images on Tuesday. "I think it's fair to say that this is unprecedented," Jay Zwally, a glaciologist at Nasa's Goddard Space Flight Center, told the Guardian.

The set of images released by Nasa on Tuesday show a rapid thaw between 8 July and 12 July. Within that four-day period, measurements from three satellites showed a swift expansion of the area of melting ice, from about 40% of the ice sheet surface to 97%.

Scientists attributed the sudden melt to a heat dome, or a burst of unusually warm air, which hovered over Greenland from 8 July until 16 July.

Greenland had returned to more typical summer conditions by 21 or 22 July, Mote told the Guardian.

But he said the event, while exceptional, should be viewed alongside other compelling evidence of climate change, including on the ground in Greenland.

"What we are seeing at the highest elevations may be a sort of sign of what is going on across the ice sheet," he said. "At lower elevations on the ice sheet, we are seeing earlier melting, melting later in the season, and more frequent melting over the last 30 years and that is consistent of what you would expect with a warming climate."

Zwally, who has made almost yearly trips to the Greenland ice sheet for more than three decades, said he had never seen such a rapid melt.

About half of Greenland's surface ice sheet melts during a typical summer, but Zwally said he and other scientists had been recording an acceleration of that melting process over the last few decades. This year his team had to rebuild their camp, at Swiss Station, when the snow and ice supports melted.

He said he had never seen such a rapid melt over his three decades of nearly yearly trips to the Greenland ice sheet. He was most surprised to see indications in the images of melting even around the area of Summit Station, which is about two miles above sea level.

It was the second unusual event in Greenland in a matter of days, after an iceberg the size of Manhattan broke off from the Petermann glacier. But the rapid melt was viewed as more serious.

"If you look at the 8 July image that might be the maximum extent of warming you would see in the summer," Zwally noted. "There have been periods when melting might have occurred at higher



elevations briefly – maybe for a day or so – but to have it cover the whole of Greenland like this is unknown, certainly in the time of satellite records."

Jason Box, a glaciologist at Ohio State University who returned on Tuesday from a research trip to Greenland, had been predicting a big melt year for 2012, because of earlier melt and a decline in summer snow flurries.

He said the heat dome was not necessarily a one-off. "This is now the seventh summer in a row with this pattern of warm air being lifted up onto the ice sheet on the summer months," he said. "What is surprising is just how persistent this circulation anomaly is. Here it is back again for the seventh year in a row in the summer bringing hot, warm air onto the ice sheet."

He also said surfaces at higher elevation, now re-frozen, could be more prone to future melting, because of changes in the structure of the snow crystals. Box expected melting to continue at lower elevations.

About half of Greenland's surface ice sheet melts during a typical summer, but Zwally said he and other scientists had been recording an acceleration of that melting process over the past few decades. This year his team had to rebuild their camp, at Swiss Station, when the snow and ice supports melted.

Lora Koenig, another Goddard glaciologist, told Nasa similar rapid melting occurs about every 150 years. But she warned there were wide-ranging potential implications from this year's thaw.

"If we continue to observe melting events like this in upcoming years, it will be worrisome." she told Nasa.

The most immediate consequences are sea level rise and a further warming of the Arctic. In the centre of Greenland, the ice remains up to 3,000 metres deep. On the edges, however, the ice is much, much thinner and has been melting into the sea.

The melting ice sheet is a significant factor in sea level rise. Scientists attribute about one-fifth of the annual sea level rise, which is about 3mm every year, to the melting of the Greenland ice sheet.

In this instance of this month's extreme melting, Mote said there was evidence of a heat dome over Greenland: or an unusually strong ridge of warm air.

The dome is believed to have moved over Greenland on 8 July, lingering until 16 July.

"Greenland ice sheet melted at unprecedented rate during July", 24/07/2012, online at: http://www.guardian.co.uk/environment/2012/jul/24/greenland-ice-sheet-thaw-nasa



❖ Occupy the Dam: Brazil's Indigenous Uprising

In the Amazonian backcountry, tribes are challenging construction of the world's third-largest dam by dismantling it.

Last month, hundreds of indigenous demonstrators began dismantling a dam in the heart of Brazil's rainforest to protest the destruction it will bring to lands they have loved and honored for centuries. The Brazilian government is determined to promote construction of the massive, \$14 billion

Belo Monte Dam, which will be the world's third largest when it is completed in 2019. It is being developed by Norte Energia, a consortium of ten of the world's largest construction, engineering, and mining firms set up specifically for the project.

The Belo Monte Dam is the most controversial of dozens of dams planned in the Amazon region and threatens the lives and livelihoods of thousands of Amazonian people, plants, and animals. Situated on the Xingu River, the dam is set to flood roughly 150 square miles of already-stressed rainforest and deprive an estimated 20,000 people of their homes, their incomes, and—for those who succumb to malaria, bilharzia, and other diseases carried by insects and snails that are predicted to breed in the new reservoir—their lives. Moreover, the influx of immigrants will bring massive disruption to the socioeconomic balance of the region. People whose livelihoods have primarily depended on hunting and gathering or farming may suddenly find themselves forced to take jobs as manual laborers, servants, and prostitutes.

History has shown again and again that dams in general wreak havoc in areas where they are built, despite promises to the contrary by developers and governments. Hydroelectric energy is anything but "clean" when measured in terms of the excruciating pain it causes individuals, social institutions, and local ecology. The costs—often hidden—include those associated with the privatization of water; the extinction of plants that might provide cures for cancer, HIV, and other diseases; the silting up of rivers and lakes; and the disruption of migratory patterns for many species of birds.



The indigenous cultures threatened by the Belo Monte Dam, including those of the Xikrin, Juruna, Arara, Parakanã, Kuruaya and Kayapó tribes, are tied to the land: generations have hunted and gathered and cultivated the same areas for centuries. They—as well as local flora and fauna—have suffered disproportionately from the effects of other hydroelectric dams, while rarely gaining any of the potential benefits. Now they are fighting back.

Indigenous leaders from these groups have asked the Brazilian government to immediately withdraw the installation license for Belo Monte. They demand a halt to work until the government puts into place "effective programs and measures to address the impacts of the dam on local people." They point out that a promised monetary program to compensate for the negative impacts of the mega-dam has not yet been presented in local villages; also, that a system to ensure small boat navigation in the vicinity of the cofferdams, temporary enclosures built to facilitate the construction process, has not been implemented. Without such a system, many will be isolated from markets, health care facilities, and other services. The cofferdams have already rendered much of the region's water undrinkable and unsuitable for bathing. Wells promised by the government and Norte Energia have not yet been drilled. The list of grievances goes on and on and is only the latest in a very old story of exploitation of nature and people in the name of "progress." Far too often, this has meant benefiting only the wealthiest in society and business.

Yet here in the backcountry of Brazil, there is a difference: the makings of a new story. The indigenous people's occupation of the dam garnered international attention, connecting their situation to other events across the globe—the Arab Spring, democratic revolutions in Latin America, the

"Occupy the Dam: Brazil's Indigenous Uprising", 24/07/2012, online at: http://www.alternet.org/story/156464/occupy_the_dam%3A_brazil%27s_indigenous_uprising



❖ Amidst Broken Promises, Indigenous Authorities Detain Belo Monte Dam Engineers

Meanwhile a new lawsuit is filed seeking suspension of the dam's construction license

Three engineers employed by Norte Energia, S.A. (NESA), the company building the Belo Monte Dam on Brazil's Xingu River, were detained Tuesday by Juruna and Arara tribal authorities in the remote village of Muratu after the company failed to live up to promised mitigation measures aimed at reducing the dam's devastating impacts on local communities.

The incident occurred yesterday as Norte Energia sought to reach agreement with tribal leaders over measures to allegedly mitigate adverse impacts stemming from construction of earthen coffer dams on the Xingu River. The authorities report that the engineers are being prohibited from leaving the village but there is no use of force or violence. The dams are blocking navigation of small boats used by indigenous peoples and other local communities, especially to reach the town of Altamira – an important center for accessing markets, basic health care, education and other services.

In Tuesday's meeting, Norte Energia representatives presented a proposal for a system for transportation of indigenous vessels around the site where coffer dams are blocking boat traffic. Tribal leaders interrupted the meeting, arguing that the proposal was ludicrous, and that such discussions would not proceed while a long list of legally required actions to mitigate and compensate the adverse impacts of Belo Monte continues to be ignored by Norte Energia. A first phase of the earthen dams has already had negative consequences for indigenous peoples, especially on water quality and devastation of fisheries.

"Nobody understood anything that the technicians said, and they didn't have any answers to our questions," explained Giliarde Juruna, a leader of the Juruna tribe from the Paquiçamba territory immediately downstream from the dam. "They didn't know how to respond when we asked them how we would bathe or how we would navigate on the river, or even how the project had changed since they presented it to us last year. In the end, the engineers agreed that our complaints were justified."

"There was a climate of total disbelief on behalf of the tribes, since Norte Energia recognized it had yet to implement the vast majority of the legally-required measures to minimize the impacts of the project on their lands," explained Thais Santi of the Federal Public Prosecutor's Office in Altamira, who was an observer at the meeting. "At a certain level, even the engineers recognized that the dam is an absurdity, that the consultation was a sham, and that the mitigation projects presented by the company's technical team didn't make any sense," noted Santi.

According to tribal leaders, the engineers will remain under detention until Norte Energia and government agencies have fully carried out promises to mitigate and compensate adverse impacts of Belo Monte, not only in relation to boat traffic, but also in terms of water quality, sanitation, and protection of their territories and natural resources.

On Monday, the Federal Public Prosecutors' Office filed a lawsuit calling for the immediate suspension of the construction license for Belo Monte, which was granted in June 2011 by the federal environmental agency IBAMA. Citing an abundance of evidence – including reports produced by



IBAMA and municipal governments and well-documented complaints filed by local indigenous leaders and NGOs – the lawsuit demands that project construction at Belo Monte be immediately halted, given the chronic non-compliance of Norte Energia with legally-required mitigation and compensation measures.

"It's an outrage that Norte Energia has been allowed to continue construction for over a year while ignoring basic measures they are obliged to carry out in order to avoid or minimize impacts on affected communities. The developer is ignoring the impacts the project is already having on indigenous people and, in the process, running roughshod over their rights," said Brent Millikan of International Rivers.

Last month, over 300 indigenous people from 9 tribes occupied the Belo Monte Dam construction site on the final day of the United Nations Rio+20 conference, maintaining the occupation for 21 days until Norte Energia stated it had reached an agreement with the occupiers. The tribal leaders involved in yesterday's action claim that an agreement was never reached, and that the developer has instead created divisions among the communities.

The Norte Energia consortium, while technically a "private" enterprise, is dominated by the Brazilian state-owned energy conglomerate Eletrobras. Major investments come from the public employee pension funds of Petrobras, Banco do Brasil and Caixa Econômica Federal, all entities under government control. The mining giant Vale – privatized in the mid-1990s but still highly influenced by the Brazilian government – purchased a 9% stake in the NESA consortium in 2011. 80% of project financing for Belo Monte's mushrooming budget – currently estimated at US\$12 billion – comes from the government-controlled development bank BNDES, financed by worker taxes and Brazilian treasury bonds.

"Amidst Broken Promises, Indigenous Authorities Detain Belo Monte Dam Engineers", 26/07/2012, online at: http://www.maritime-executive.com/pressrelease/amidst-broken-promises-indigenous-authorities-detain-belo-monte-dam-engineers