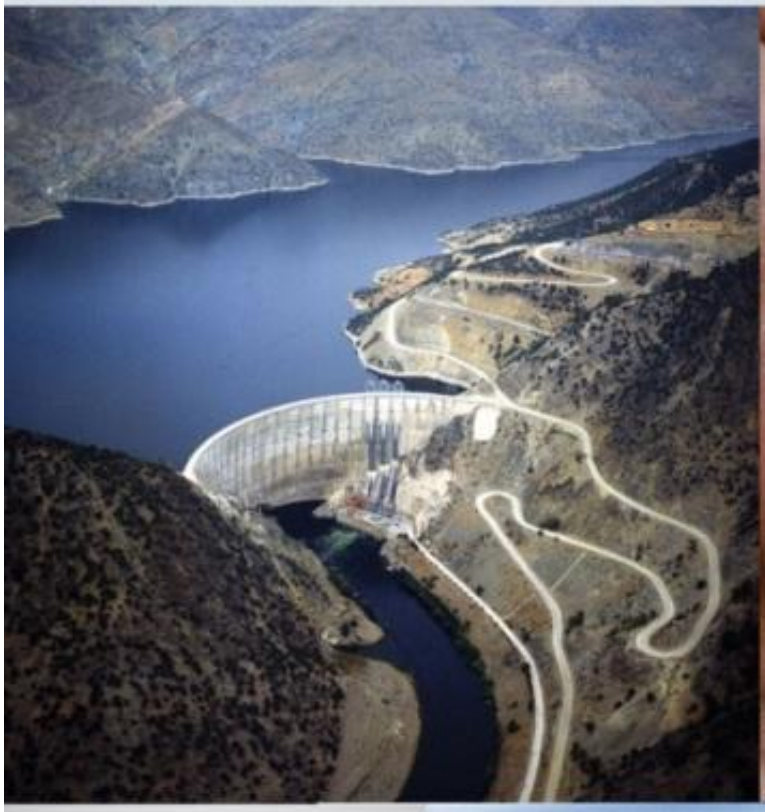


ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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





Issue 123

ORSAM WATER BULLETIN

08 April 2013 – 14 April 2013

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

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

❖ Turkey May Complete N. Cyprus Water Pipeline Ahead of Schedule

A subsea Mediterranean pipeline transporting fresh water from Turkey to northern Cyprus may be finished ahead of schedule.

"The construction on land will be finished by August- September and the subsea section is planned to be finished by the end of the year, so it will be possible to finish the project some three months ahead of the March 2014 target," said Ali Cetin Amcaoglu, Agriculture and Natural Resources Minister of the self-declared Turkish Cypriot state, in an interview with Turkish state TV channel, TRT.

The 107-kilometer (67-mile) pipeline will cost about 1.5 billion Turkish liras ($841 million) and run from Alakopru dam near Anamur on the Turkish coast to a dam to be built in Gecitkoy in northern Cyprus. The subsea section of the pipeline is 81 kilometers long, Amcaoglu said.

Cyprus has been divided between the Republic of Cyprus and Turkish-held north since 1974.

"Turkey May Complete N. Cyprus Water Pipeline Ahead of Schedule", 10/04/2013, online at:
http://www.bloomberg.com/news/2013-04-10/turkey-may-complete-n-cyprus-water-pipeline-ahead-of-schedule.html

BACK TO TOP

❖ Turkish PM determined to enhance Turkish-Kyrgyz cooperation

Turkish PM Erdogan held official talks in Bishkek where a cooperation agreement on air transport, tourism and forestry was signed between Turkey and Kyrgyzstan.

Turkish Prime Minister Recep Tayyip Erdogan on Wednesday said, "Our heart has beat with Kyrgyzstan during the 22-year process where it gained its independence. It is our duty to stand by Kyrgyzstan at their difficult times."

Erdogan held a meeting with his Kyrgyz counterpart Jantoro Satybaldiev in Bishkek, the capital of Kyrgyzstan.

Reminding that he was in Bishkek to attend the High Level Strategic Cooperation Council meeting, Erdogan said, "We are two friendly states with Kyrgyzstan. Our heart has beat with Kyrgyzstan during the 22-year process where it gained its independence. It is our duty to stand by Kyrgyzstan at their difficult times."

Erdogan stated that the establishment of the Kyrgyz democracy in a very short time in September 2012 indicated the success of Kyrgyzstan.

Erdogan mentioned that the trade volume between two countries have increased by 90 million dollars in 2012 to 302 million dollars, and added, "We must reach the 1 billion dollar trade volume very soon. We can do this, as long as we have the political will."

Erdogan touched on the contribution of the increased number of Istanbul-Bishkek flights by Turkish Airlines and the beginning of Istanbul-Osh flights on bilateral relations and trade.

Erdogan also stated that Kyrgyzstan was rich in terms of its water sources and said, "Prices are reasonable in consuming energy produced from hydroelectricity. It is not appropriate to watch the water go down the drain. We have made good use of Turkey's water sources. We have reduced our dependency to natural gas 8 points. Kyrgyzstan's water sources should also be used effectively. We can start joint projects for installing hydro-electric power plants in Kyrgyzstan."

Following the talks between delegations, a cooperation agreement on air transport, tourism and forestry was signed between Turkey and Kyrgyzstan.

Erdogan then held tete-a-tete meeting with Kyrgyz Parliament Speaker Asilbek Jeenbekov.

Turkish deputy prime ministers Bulent Arinc and Bekir Bozdag, Foreign Minister Ahmet Davutoglu, Minister of Finance Mehmet Simsek, Minister of Economy Zafer Caglayan, Minister of Culture and Tourism Omer Celik, Deputy Chairman of the ruling Justice and Development (AK) Party Mevlut Cavusoglu, AK Party group deputy chairman Nurettin Canikli and several MPs accompany Erdogan.

"Turkish PM determined to enhance Turkish-Kyrgyz cooperation", 10/04/2013, online at: http://www.worldbulletin.net/?aType=haber&ArticleID=106342

BACK TO TOP

❖ Turkey to convey experiences to Azerbaijan

Turkish Minister of Forestry and Water Works Veysel Eroglu stressed that Turkey and Azerbaijan shared excellent relations in all fields.

Turkish Minister of Forestry and Water Works Veysel Eroglu on Thursday said that they would convey their experiences to Azerbaijan.

Eroglu first visited the tomb of late Azerbaijani President Haydar Aliyev, the Monument of Baku Martyrs and Baku Turkish Martyrdom as part of his formal program in Baku.

Eroglu later met with the Azerbaijani Minister of Ecology and Natural Resources Huseyngulu Bagirov.

Speaking to reporters after meeting Bagirov, Veysel Eroglu stressed that Turkey and Azerbaijan shared excellent relations in all fields.

We held talks to promote our relations, Eroglu noted.

As part of our cooperation, we provide training to workers of Azersu, Eroglu stated.

We will convey our experiences to Azerbaijan, Eroglu underlined.

Eroglu continues his formal talks in Baku on Thursday. He is expected to meet Azerbaijani President Ilham Aliyev and Deputy Prime Minister Abid Sharifov.

Eroglu will later attend the Caspian International Water Technologies Fair.

"Turkey to convey experiences to Azerbaijan",11/04/2013, online at:
http://www.worldbulletin.net/?aType=haber&ArticleID=106416

BACK TO TOP

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

❖ Construction of world's largest clean drinking water producer in Baku to cost $1 bn

Baku, Fineko/abc.az. The construction of world's largest plant for clean water production is going to finish by the end of 2013. The plant is being built by company Dow, the project customer is Azerbaijan's national water operator Azersu OJSC.

Today in Baku Ihsan Nejipoglu, general manager of Dow Water & Process Solutions in the CIS countries, Russia, Central Eastern Europe and Turkey, has stated that construction of the plant will enable to improve quality of water supplied to 1.5 million customers by ultrafiltration method.

"The new water producer plant is the largest project in the world, and Dow Water & Process Solutions is interested in cooperation with Azerbaijan not only in water, but also in chemical and energy sectors. Currently, we are studying the Azerbaijani market. In the future in order to activate our participation in Azerbaijan we plan to open our office in Baku," Nejipoglu said.

In turn, commercial Gergeli Nagi, Central Asia and Turkey commerce director of Dow Water & Process Solutions, says that daily capacity of the being-built plant is 520,000 cu m with a possibility of additional increase by another 20%.

"Our company is building and implements work on the construction of the plant, but in the future it is planned to lay water lines as long as 257 km within this project. At primary stage the new plant will start operating in parallel with the existing plant, which is owned by Azersu, but in the future due to the new plant project, Azersu may decide to close its plant," Nagi said.

He added that with the start of operation of the new plant the Baku water consumers will be able to feel really the difference in quality of water obtained by ultrafiltration.

"The total cost of plant construction is estimated at $1 billion," Nagi emphasized.

He also noted that currently Dow Water & Process Solutions is in talks with Azersu about participation in other projects, in particular in cities Mingachevir and Lankaran.

DOW Ultrafiltration, used in the design and construction of the plant, utilizes a double-walled, hollow fiber, PVDF membrane which is much more robust, tolerant to chemical cleanings, and less

prone to breakage than those materials used by the average of microfiltration or ultrafiltration products on the market. The uniformity of pore size and outside-in flow ensures the DOW Ultrafiltration membrane creates a good barrier without sacrificing performance.

DOW Ultrafiltration is NSF61 certified for drinking water applications, and is effective for removing a good range of particulate matter. DOW Ultrafiltration facilitates for higher solids loading, higher flow area and easy cleaning. In addition, DOW Ultrafiltration minimizes energy required to filter water for drinking processes, reduces operational costs and greenhouse gas emissions into the atmosphere.

"Construction of world's largest clean drinking water producer in Baku to cost $1 bn", 11/04/2013, online at: http://abc.az/eng/news_11_04_2013_72823.html

BACK TO TOP

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

❖ Iran speeds up dam construction to deal with water shortage

Iran, which is subjected to the Middle East's semi-arid climate, has a large geography with a surface area of 1.7 million square kilometers.

It is located in one of the most arid regions of the world and its average annual precipitation is 252 millimeters. This figure is just a fourth of the world's average precipitation. In the current climatic conditions, 179 millimeters -- or 71 percent -- of this precipitation evaporates. The average evaporation occurring in Iran varies between 1,500-2,000 millimeters. This figure is a third of the world's average. While this number is 2,000 millimeters/year in the northern mountainous region of the country, in the desert area it is 20 millimeters/year. Two-thirds of Iran receives precipitation below the average amount.

Water resources in Iran are mostly used for irrigation purposes, as is the case around the world. About 92.8 percent, or 83.5 billion cubic meters, of the water consumed is used for irrigation. Around 50 percent of the water used in the area of agriculture is obtained from surface water, and about 50 percent is obtained from underground waters.

In areas where water resources are scarce like Iran, it is seen that apart from water shortage, another problem is that water is not used efficiently due to poor management of water resources. Comprehensive research on irrigation indicates that it is necessary for irrigation methods to be changed in order to reduce water loss and water resources to be used efficiently and for modern irrigation techniques like drip irrigation and sprinkling to be developed.

In recent years, Iran has been one of the leading countries in terms of the construction of dams. In Iran, which is the top country in the region and the third in the world in the sector of dam construction, dam construction started in the 1950s. Before the Islamic Revolution of 1979, only 14 large dams had been constructed through the investments of foreign banks and companies. The new political system, established after the 1988 Iranian-Iraqi war, also affected the management of water resources, and the construction of dams has gathered speed. Today, Iran is able to construct its dams without foreign capital. The dams in Iran are meant to help use and control reservoirs for the long term. The dams in Iran are firstly constructed for the purposes of providing drinking water, irrigation, producing hydroelectricity and as storage during the transfer of water between basins. Until now, approximately 541 dams, both large and small, have been constructed in Iran. According to the International Commission on Large Dams (ICOLD), this number is 501. In 2007, the construction of 88 dams also began. This figure grew to 135 dams in 2011 and 546 more dams are planned to be constructed. The total amount of water stored in dams in Iran to date is 52 billion cubic meters.

This week, the inauguration of 15 dams took place in Iran. The total water capacity of these dams is 6 billion cubic meters. With this, the total capacity of dams in Iran will be 61 billion cubic meters, and this is approximately double the annual flow rate of the Euphrates. Director of the Iranian Water

Resources Management Company Mohammad Hajrasouliha has expressed in statements that 75-80 percent of surface water flows to the dams and that 36 billion Iranian rials have been allocated for the construction of dams. In addition, it has also been indicated that 135 dams are still in the process of being constructed.

For many years, Iran has attempted to resolve its water shortage problem, which is experienced in specific areas of the country due to unequal distribution of water resources and demand, by transferring water between basins. It is predicted that a rapid increase in population, population movement intensifying in cities, food issues, a fall in precipitation and droughts will make it difficult for Iran to meet its demand for water in the coming period. By applying modern irrigation techniques, developing projects on water transfer between basins, building dams and reservoirs to store water and taking steps towards cooperating with its eastern neighbors, Iran is attempting to find a solution to resolve its problems of water amount and quality.

Furthermore, the water shortage envisaged for the next 10 years has especially started showing itself in Iran with the arid periods experienced in the last three years. According to statements by Alborz province's Water Resources Management Unit, as mentioned above, an increase in population, insufficient investment and poor management create problems in the sustainable management of water resources. Based on the calculations of Iran, which has experienced periods of drought over and over again in recent years, the amount of water per person will be 1,300 cubic meters in 2020. Moreover, dust storms carried either from Iraq or from other neighboring countries which also contain salt create another problem in that damages the quality of water and soil.

"Iran speeds up dam construction to deal with water shortage", Tuğba Evrim Maden, 14/04/2013, online at: http://www.todayszaman.com/news-312522-iran-speeds-up-dam-construction-to-deal-with-water-shortage.html

BACK TO TOP

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

❖ Fifteen New Dams To Come On Stream In Iran

TEHRAN, April 8 (Bernama) -- Fifteen new dams will be inaugurated across Iran by the end of the current Iranian calendar year, which began on March 21, Iran's IRNA News Agency quoted Managing Director of Iran Water Resources Management Company Mohammad Haj-Rasouliha as saying.

The dams will have a total water storage capacity of six billion cubic metres, he added. The existing dams gave a total storage capacity of 52 billion cubic metres, he noted.

In August 2012, Haj-Rasouliha said that according to the fifth five-year development plan, which started in March 2011, one dam should be built each month.

Some 36 billion rials (around US$3 billion) has been allocated for dam building, he noted.

Some three billion cubic metres of surface waters in Iran are being reserved behind dams, Energy Minister Majid Namjou said in June 2012.

He said that 75-80 percent of surface waters are poured into the dams.

Iran ranks first in the region and third in world in terms of dam construction industry, First Vice President Mohammad Reza Rahimi announced last year.

He added that currently contractors are building 135 new dams across the country and also doing several projects in other countries.

In July 2011, Iran celebrated self-sufficiency in dam construction by inaugurating the Karun-4 dam, the largest concrete dam in Iran, which has been completely designed and constructed by domestic engineers.

"Fifteen New Dams To Come On Stream In Iran", 08/04/2013, online at:
http://www.bernama.com/bernama/v7/wn/newsworld.php?id=940276

BACK TO TOP

❖ Iran carrying out $3.2b worth of water and power projects overseas

TEHRAN – Iran is currently implementing 59 water and power contracts, valued at $3.198 billion, overseas, Iranian deputy energy minister Esmaeil Mahsouli announced on Monday.

Iran has also invested $1.453 billion to complete 213 projects in these fields in other countries, IRNA quoted him as saying.

Some 45 Iranian companies have launched water and power projects in 40 countries, mainly in Central Asia, Middle East, Latin America, and Africa, he explained.

Iran has reached self-sufficiency in producing equipments for the domestic power electricity industry, according to officials.

The country has signed a couple of technical and engineering projects in recent years in the fields of energy in several Asian and African countries.

Iran aims to export $4.5 billion worth of technical and engineering services in the current calendar year.

"Iran carrying out $3.2b worth of water and power projects overseas", 08/04/2013, online at: http://www.tehrantimes.com/economy-and-business/106653-iran-carrying-out-32b-worth-of-water-and-power-projects-overseas

BACK TO TOP

❖ 'Iraq's environmental catastrophe worse than Hiroshima'

Ten years ago, invading American troops and their allies deliberately tested all sorts of weapons, contaminating Iraqi the environment for hundreds of years to come and reducing citizens' life expectancies to 30 years, an Iraqi doctor told RT.

Over the ten years of occupation, Iraqi citizens have been developing alarmingly growing numbers of medical conditions, the Iraqi cardiologist, Dr. Omar al-Kubaisi, told RT's Arabic-language sister channel Rusiya Al-Yaum.

RT: *What is the nature of these conditions?*

Dr. Omar al-Kubaisi: I'd like to start by saying thanks to the Rusiya Al Yaum TV channel for this opportunity. I would like to talk first about the general health status and then I'll address your question about the medical conditions. The United States claimed to have been helping Iraq restore the country in all areas, such as education, through investments, but in fact the only real "help" that came from the US was their deployment of the weapons prohibited by the Geneva [Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques] on Iraqi soil.

This convention forbids the use of any weapons capable of changing the environment at the site of war including making changes to climate and water sources, which will affect the entire ecosystem. The events of 1991 and 2003 were nothing but catastrophic. They have deployed all sorts of weapons you could think of: cluster, white phosphorus, depleted uranium munitions, toxic gases and poisonous substances, in other words chemical weapons. All these types of weapons were used deliberately and massively. They were test-tried in Iraq and caused an environmental catastrophe worse than that of Hiroshima.

RT: *Isn't it an overstatement?*

OK: Not in the slightest. This is not just my opinion. You can look it up on the Internet in the reports of the Human Rights Watch and the World Health Organization. Internationally acclaimed scientists have measured the levels of radiation which were found to be indicative of radiological contamination of Iraq's southern, central and even some northern territories. And despite all the calls for attention and help published by the Iraqi scientists – and I'd like to note that we have internationally recognized nuclear physicists and biologists in Iraq – despite all their effort no one, neither chemists, nor physicists, nor healthcare officials, nor the United States paid any attention.

Whereas these publications mentioned such things as a widespread environmental contamination resulting in a growing number of congenital deformities, miscarriages, all kinds of cancer cases, and

increased levels of radiation throughout Iraq. And it wouldn't be so bad if it were only about the US. The worst thing is that Maliki's government and all occupation governments have been the first to crack down on those who speak about the chemical and radiological contamination.

RT: *Why is that the case? Isn't it the government's duty to protect its people and undertake measures to eliminate contamination?*

OK: I believe the government feels indebted to the occupants. All the ministers and officials are not free to talk openly about this problem. There is also a ban to publish any works or articles on this subject both here and in the United States. This ban was initiated by the US administration of the Pentagon and applies even to our scholars. But nonetheless, the information is available on the Internet, you can find publications on the contamination in Iraq and its effect on the population – and I'm not talking only about Fallujah or Basra.

There are very alarming numbers of spreading cancer cases and cases of congenital disorders. Average life expectancy of those citizens who were affected dropped by 30 years in 2010. A lethal outcome is predicted for 20% of Basra's population. The number of breast cancer cases has grown by different assessments 15 or even 30 times. Cases of congenital heart disease have become 15 times more frequent, and cases of leukemia increased 30 times. The problem with these kind of tumors is that they can affect several different organs at a time. A person can have a brain tumor, kidney tumor and suffer from blood cancer at the same time. Another problem is that those kids who have already been exposed to radiation find it hard to handle re-irradiation. So we have a generation that has suffered losses.

RT: *So we can conclude that it all has resulted in infected and damaged genes, right?*

OK: No, genes of the Iraqi people are fine. However, chemical weapons and radioactive materials did have an impact on amino acids of the cell, which causes disorders and leads to cumulative hereditary diseases. The half-life of radioactive elements that were used in these weapons amounts to millions of years. Children of the people who were exposed to radiation in Hiroshima 50 years ago are now diagnosed with cancer and have congenital anomalies 30 times more often than is average across the country.

RT: *So we can say that it has taken its toll on generations in Iraq?*

OK: Cumulative effect lasts for hundreds of years. Air, soil and water – all of these can become contaminated. In Iraq they used depleted uranium weapons, and its particles remained on damaged military hardware that was abandoned: on the surface of tanks, cannons and motor vehicles. In a number of cases these pieces of hardware were left in the vicinity of inhabited areas. In case of explosion, molecules of depleted uranium are scattered, and, as they are smaller than a micron in

size, they can be easily inhaled by a human. But once breathed in – they will stay in your respiratory organs.

USA Today magazine published results of research carried out by the US General of the Medical Corps on chest diseases among American soldiers. The research was carried out among the soldiers of the US Navy who had filed health compensation claims. The procedure of taking tissue samples from lungs and other organs showed there were particles of depleted uranium in them.

RT: *How can this tragic situation be improved?*

OK: Two years ago I told you it was necessary to measure radiation all over Iraq – back then it might cost over $60 billion. According to some research centers, reclamation of contaminated lands in Norway will now cost about $30-45 billion. But the amount of such areas in Norway is around 300, while in Iraq it amounts to thousands. Reclamation of each piece of land will cost $100-150. You can do the math yourself. The state budget allocation for healthcare is 5-10%. First, you have to perform the area monitoring from the air, then you need to do the ground monitoring with the Geiger-Mueller counters. After that, you need to analyze soil and water to define the degree of contamination. The next step is to produce a general plan and start treating the soil. And this is a complex task. You either have to bury the contaminated layers very deep in the soil or move them to special landfills located far away from populated areas.

'Iraq's environmental catastrophe worse than Hiroshima', 09/04/2013, online at: http://rt.com/op-edge/iraq-environmental-catastrophe-hiroshima-533/

BACK TO TOP

❖ Iraq struggles to solve electricity crisis

Thick clusters of electric wires hang low from tilted wooden poles, winding their way through Baghdad's alleyways to distribute privately generated electrical power.

It is one of the most common scenes across Iraq's urban landscapes and seems to reflect much of what is wrong with the country's electricity sector - crumbling infrastructure, unreliable services, and a tangled web of bureaucracy and corruption.

But all of that will soon be history, according to the Ministry of Electricity.

"Fourteen gas turbine stations are being built in addition to four new ones that are already generating power," said ministry spokesman Musaab Mudarres.

"We will enter the summer with 12,000 megawatts of capacity, and people will need private generators for only a few hours a day."

Poor maintenance
Many Iraqis pay two bills for electric power - one to the government and another to owners of private generators. Ten years after the war, the power supply still falls short of demand.

The Ministry of Electricity blames other government departments, including the ministries of Planning and Water Resources, for many of its problems.

Mr Mudarres says efforts to install underground distribution lines in urban areas have been delayed because the Ministry of Planning has not provided the necessary maps.

And across Iraq, hydroelectric power plants are operating below capacity because the Ministry of Water Resources has not provided proper maintenance of dams, he says.

But his most bitter complaints are reserved for the Ministry of Oil, which most of Iraq's power plants rely on for fuel.

Mr Mudarres says poor maintenance of pipelines and delays in developing oil fields have caused gaps in generation at many new plants.

"We understand the pressure they are under, as most of the country's revenues come from oil exports", he said. "But we need fuel for our power plants as well."

Importing oil
At the South Baghdad gas turbine power plant, fuel is certainly in high demand. The containers here can store up to five million litres of heavy fuel oil, the thick black residue that remains after crude oil has been refined and other products extracted.

It is used in making asphalt but here, they burn it to power turbines and generate electricity.

"It causes a great deal of pollution, and affects the turbines," said Rafea Salman, the engineer in charge of the plant.

"We have to switch off our generation units once a week to wash the blades."

Even worse, heavy fuel oil incurs additional expenses on the plant. Dozens of barrels line the road leading up to the containers. They are full of chemicals needed to treat the fuel so it could be used to power the turbines.

A whole section of the power plant is dedicated to the treatment process, including a lab to test the final product before use.

The plant also uses lighter oil products, but many of these have to be imported because Iraq's refineries cannot keep up with domestic demand.

"We import around four million litres a day of gasoil from Iran because the Ministry of Oil is not giving us what we need," says Mr Mudarres.

"It's a thorny business," he told me. "There has been a lot of corruption involving the companies contracted to transport the fuel. We used to receive lower quality fuel than what we bought, and in smaller quantities than agreed."

Corruption
In 2012 the Ministry of Electricity decided against renewing the contracts. Now the Ministry of Oil imports the fuel products on behalf of the Ministry of Electricity and delivers them to the power plants.

Does that mean corruption has been eliminated?

"Not necessarily", he said, "but it wouldn't have anything to do with us. Committees from the Ministry of Oil are present in every one of our power plants. They are in charge of delivery, and we deal directly with them."

Some of the problems might be resolved if Iraq started making better use of its natural gas, considered the best fuel for power plants.

But a lot of Iraq's natural gas is still being flared and production is a long way from meeting demand.

Once again, Iraq turns to Iran for help.

"By the end of June Iran will provide us with 25m cubic metres a day of natural gas to feed three stations," said Mr Mudarres.

Empty promises?

Not all plants need fuel to burn; Iraq is about to experiment with solar and wind energy. The Ministry of Electricity plans to set up generation units in 14 remote areas, many of them along the country's borders.

The plan would benefit communities that are well out of reach of national distribution lines, and serve as a pilot project.

"We want to test the possibility of expanding renewable energy. The next step would be to increase generation from solar and wind projects to 400 megawatts, or two percent of the energy mix," said Mr Mudarres.

For years, Iraqi officials have been making promises of drastic improvements in power generation, but few of them have been kept.

The deal to import natural gas from Iran was signed in 2011 but the pipelines have not been completed and no gas has crossed the border.

And some of the plans to increase efficiency in the power sector rely on improvements in the oil sector which are also not guaranteed.

In this context, the new promises seem bold and ambitious.

"By the end of 2013, the crisis will be over for households and we'll have electric power around the clock across the country. By the end of 2014, we will have met industrial demand as well," said Mr Mudarres.

As he spoke, Baghdad was still delighting in a cool spring breeze. But it will only be a few more weeks before the unforgiving summer sun beats down on Iraq and people switch on their air-conditioners. As demand peaks, the promises will be tested.

"Iraq struggles to solve electricity crisis", 11/04/2013, online at: http://www.bbc.co.uk/news/world-middle-east-22093992

BACK TO TOP

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

❖ Drought and Dams in Biblical Garden of Eden

This spring, National Geographic Young Explorer Julia Harte is traveling along the Tigris River from Southern Iraq to Southeastern Turkey, documenting ancient sites and modern communities along the river before they are transformed by the Ilısu Dam, an 11 billion-cubic-meter hydroelectric dam that will generate 2 percent of Turkey's power.

———

Few places illustrate the vitality of water more starkly than Southern Iraq.

The region that gave rise to human civilization as we know it, the heartland of ancient Mesopotamia, the original referent of the Garden of Eden – Iraq's lower third has been many things, but today it is the site of a wrenching ecological and human struggle.

Driving north from Basra along the Shatt al-Arab, the waterway that forms at the confluence of the Tigris and Euphrates Rivers, desert engulfs you. The only patches of color on the landscape are posters for Iraq's April 20 provincial elections.

As the road branches and you turn northwest, following the route of the Euphrates away from the Tigris, the river takes some time to appear.

The Euphrates no longer extends all the way to the Shatt al-Arab, according to Jassim Al-Asadi, director of the Southern Iraq branch of the environmental NGO Nature Iraq. It has been diverted back into the Awhar, or Mesopotamian Marshes: a vast wetlands nestled into the crook of the Tigris and Euphrates confluence.

For millennia, Marsh Arabs lived in these marshes in reed huts, hunting and keeping water buffalo for sustenance. But in the 1990s, the marshes were drained by former Iraqi President Saddam Hussein, displacing hundreds of thousands of Marsh Arabs. After the fall of Hussein, the marshes began to come back, aided by the efforts of Nature Iraq.

But in 2007, a massive drought hit the area, and the levels of the Tigris and Euphrates have been falling ever since, the water loss exacerbated by more than 40 new upstream dams that have come online in the past three decades. In the central marshland district of Chibayish, where Al-Asadi was born, he says the population dropped from 60,000 to 6,000 in just three decades.

The marshes aren't the only place in Southern Iraq threatened by the drought and by upstream dams currently under construction on the Tigris River, of which Turkey's Ilısu Dam is the biggest.

Farmers throughout the region have suffered huge losses in the recent drought years, partly due to the lack of modern irrigation technology in Iraq. Some have migrated to cities in search of new work; others have resorted to suicide.

When water rights are discussed in this context, passions tend to rise. Diplomatic language fails to convey the tremendous impact that a single dam project can have on millions of lives.

So when I had the opportunity to separately interview three key players in the debate over Turkey's half-finished Ilısu Dam, just weeks before flying to Basrah to begin my expedition along the Tigris River, I wasn't surprised that each invoked a proverb to express his opinion on the project.

Waja'alnā mina l-māi kulla shayin hayyin. "By means of water, we give life to every living thing." That Koranic verse sums up the importance of the Tigris River in Iraq, according to Bakhtiar Amin, Human Rights Minister of Iraq from 2004 to 2005.
Amin anticipates dramatic declines in the quantity and quality of the Tigris River in Iraq after the Ilısu Dam. It will reduce the Tigris River's downstream flow from 20 billion cubic meters (BCM) to just 9 BCM, he says, destroying about 670,000 hectares of arable land in Iraq. When the river level gets that low, Amin warns, saline water from the Persian Gulf will also infiltrate the Tigris. Recent drought years have already resulted in salty tap water throughout the lower third of Iraq.

Although the most controversial project of its kind in Turkey, the Ilısu Dam is just one of 22 hydroelectric dams constructed in Turkey under the Southeastern Anatolia Project (GAP). Eighteen have already been built in the region since the Turkish government approved the project in 1982. Some estimates project that GAP will have reduced the overall flow of the Tigris River in Iraq by 80 percent when complete.

Komşusu açken tok yatan bizden değildir. "We cannot sleep satisfied when a neighbor is hungry." That's the Turkish proverb that Ahmet Saatçi, President of the Turkish Water Institute, uses to respond to the anxieties of downstream stakeholders.

"If our neighbor is thirsty, of course we will help him. Historically we have shown this," he says. The dam must be built, according to Saatçi, to shore up Turkey's energy supply and lessen its reliance on imported energy, mainly from Russia and Iran. He has heard the concerns of Iraqis, but says they "lack data" and are mainly "emotional talk".

Saatçi argues that Turkey is pioneering wastewater treatment plants, and will be happy to export the technology to Iraq to ameliorate any salinization that Turkey's dams cause in the Tigris River. Iraqis themselves must learn to use water more efficiently, he adds, with modern irrigation techniques. Furthermore, he says, Turkey has always maintained the flow of the Tigris into Iraq at 500 cubic metres per second — Amin disagrees, saying the current rate is more like 200 cubic meters per second — and previous Turkish dams have never hurt Turkey's downstream neighbors.

Some would disagree; Turkish police had to foil attempts by Syrians to blow up the largest GAP project, the 27-billion-cubic-meter Ataturk Dam, which reduced the Euphrates to a trickle for 30 days after it was opened in 1990.

A little lamb in the market of the camels. That's what Iraq is, compared to upstream neighbors such as Turkey, says Talib Murad Elam, Advisor for Agriculture and Food Security in the Kurdistan Regional Government of Northern Iraq.
"At the moment, we're importing 96% of what we eat and drink from Iran and Turkey. So us having an agricultural industry is not to the benefit of our neighbors," says Elam.

In Kurdistan, which is already experiencing large-scale urban migration and the transformation of rural villages from producer units to consumer units, the loss of more than half the Tigris River will "spell disaster," according to Elam. "It's a lifeline for 33 million people," he says.

Over the course of this trip, I'll boat through the Mesopotamian Marshes and visit modern Marsh Arab homes, spend a day at the ancient Sumerian city of Ur, interview farmers in Southern Iraq about the difficulties they face, stay with nomads in Iraqi Kurdistan to observe the role of the Tigris in their seasonal migration routes, travel overland into Turkey, document ongoing archeoloogical excavations and already unearthed wonders at the soon-to-be submerged ancient town of Hasankeyf, interview the Turks and Turkish Kurds that have been or will be displaced by the Ilısu Dam, and visit other archeological sites in its floodpath.

My next post from Southern Iraq will be all about the wildlife, human inhabitants, and archeology of the Mesopotamian Marshes. Check back soon!

"Drought and Dams in Biblical Garden of Eden", JuliaHarte, 11/04/2013, online at: http://newswatch.nationalgeographic.com/2013/04/11/drought-and-dams-in-biblical-garden-of-eden/

BACK TO TOP

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

❖ Iraq: Technician training keeps water flowing in rural areas

Clean water is hard to come by in the Iraqi countryside. Drought, falling water levels in the Tigris and the Euphrates, low water tables, overuse of water and poor maintenance of water systems are all contributing to shortages. To make matters worse, water technicians often lack the necessary skills, leading to supply failures. In response, the ICRC has trained 285 water technicians in southern Iraq since 2011.

Abu Aissa is a small village on the banks of the Euphrates, 15 kilometres from Najaf in the south of Iraq. Its 2,000 inhabitants grow grapes and fruit, but more and more are abandoning agriculture.

The village used to suffer from frequent water cuts, especially in summer. Mohamed Muhssen Jabr was born here. Now middle-aged, he had to carry water from the river three or four times a day until recently. "All our daily activities were difficult; taking a shower, washing clothes, cleaning the house, everything!"

Hussein, a teenager, also remembers carrying water from the river. "We only used river water to wash dishes and clothes. We never drank it or cooked with it," he explains. Families in Abu Aissa do not trust tap water for drinking. They buy filtered water from shops, where they have to pay 500 dinars (50 US cents) for 20 litres.

Abu Aissa gets its water from the Euphrates, and failures in the water systems were leading to frequent cuts. Hassen Abdel-Amir operates the water treatment unit in Abu Aissa that pumps water from the river and treats it before distributing it to the village network. "It sometimes took days to make a repair and get the water flowing again," he explains. "Every time a piece of equipment failed, we had to call the maintenance team, who would take it to Najaf for repair."

The shortage of skilled technical staff is having a direct effect on the performance of Iraq's water infrastructure. The problem started in the early eighties during the war with Iran, when the majority of trained staff in the water directorates had to join the armed forces. Some stayed in the forces for up to ten years. Many were killed, others retired at the end of the war.

After 2003, the authorities started to build new water facilities to meet the demand, providing 400 new facilities in southern Iraq between 2003 and 2011. But there were too few skilled staff to run them properly.

Since 2009, the ICRC has built or repaired 30 water treatment units in southern Iraq. But again, we soon realized that lack of operator training was causing technical and maintenance problems at some locations.

"The staff operating the machines need a number of basic skills if they are to run the water facilities properly, maintain water quality and avoid cuts in supply," explains Imad Chiri, the ICRC engineer in charge of water projects in southern Iraq. "They need to be able to operate the mechanical dosing system that adds aluminium sulphate and chlorine to the water pumped in from water sources, and they need to be able to solve the most common mechanical and electrical problems without an

engineer's assistance." Operators in the southern rural areas were lacking such skills, in particular with regards to dosing and electrical failures. They also lacked essential knowledge of maintenance procedures and safety precautions.

Since 2011, the ICRC has been working with the water directorates in southern Iraq to run training programmes for technicians in Najaf, Babil, Karbala, Basra, Muthanna, Thi Qar and Missan. The courses were given by Basra Technical College, Najaf Technical Institute, the University of Karbala and the University of Babylon. They involved training 285 operators of water treatment units in rural and remote areas in welding, maintenance and electrical skills

Abdul-Kadhim al-Yasiri is Dean of the Technical Institute in Najaf. Speaking after last September's ten-day course in Najaf he explained: "The ICRC's training has really made a difference, because now a technician can fix a broken water pump or a chlorine dosing system without having to wait for an engineer."

During the course, 15 technicians learned how to repair pumps, make electrical repairs and ensure that the dosing of chemicals is correct. The operators also received health and safety training. According to Ali Hussein Darweesh, a supervising engineer of water projects in Abbasiyah area, "Since the course, operators no longer need advice for every single problem. They can organize their daily work better, and that has given people a more reliable supply of clean water."

Back in Abu Aissa, things are easier now for Mohamed Muhssen Jabr. "We have fewer water cuts. I just turn on the tap and water comes out!"

"Iraq: Technician training keeps water flowing in rural areas", 09/04/2013, online at:
http://www.icrc.org/eng/resources/documents/feature/2013/04-09-iraq-water.htm

BACK TO TOP

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

❖ Israel slammed for appropriating Palestinian water supplies

A report by a Palestinian NGO says Israel has been practicing "water apartheid" against Palestinians, depriving them of their "rightful water supply."

The report released by the Ramallah-based al-Haq organization denounces a "discriminatory access" to water supplies which allows the 500,000 Israelis in the occupied West Bank receive six times the amount of water the 2.6 million Palestinians there are given.

Titled "Water for One People Only: Discriminatory Access and 'Water-Apartheid' in the Occupied Palestinian Territories," the report explained how the growing illegal settlements continue to reroute water to the Israeli water company.

It said as an "occupying power," Israel is violating international humanitarian law, under which the regime have no rights over the occupied territory or its natural resources.

"Israel has extensively and unlawfully appropriated Palestinian water resources in the Occupied Palestinian Territories for the sole benefit of those residing in Israel and Israeli colonies," the report stated.

The NGO also blamed Tel Aviv for "maintaining a practice of extensive destruction of Palestinian water infrastructure," noting that over 300,000 Palestinians in the West Bank are not connected to a water network.

Al-Haq called on Israel and third-party states to take immediate steps to end the exploitation and appropriation of Palestinian natural assets and devise structural changes to the management system for shared water resources.

The United Nations Office for the Coordination of Humanitarian Affairs has also criticized Israel for its continuous demolition of Palestinian water sources.

"Israel slammed for appropriating Palestinian water supplies", 11/04/2013, online at:
http://www.presstv.ir/detail/2013/04/11/297722/ngo-condemns-israel-water-apartheid/

BACK TO TOP

❖ Israel Invested $825 Million USD in Water Infrastructure in 2012

TEL AVIV, ISRAEL — Israel has invested some $825 million USD in water infrastructure in 2012, according to its Water Authority's 2012 annual report, released this month.

This "unprecedented investment" consists of water and sewerage infrastructure in national, regional and municipal systems.

Despite the steep investment, the Water Authority said Israelis paid less for their water than other countries with more available natural water sources, citing a comparative study of water and sewage rates.

Israel's water consumption outstrips the country's natural water sources. But the report states that the steady increase in desalinated water production and of recycled treated wastewater, coupled with two years of above average precipitation, has enabled the country's water supply to recover after seven years of drought.

Israel's water supply had undergone something of a revolution in recent years, in which it switched from relying on natural sources such as rainfall and Lake Kinneret, to a system in which half of the supply is produced through technological solutions – primarily desalination and water treatment.

This has allowed an increase in availability of treated water for agricultural purposes: Israel's agriculture sector will receive a 25 million cubic meter boost in water supply in 2013, after six years of strict rationing.

The Water Authority plans to further increase water for agriculture, but needs to balance it with increased rates for farmers.

Additionally, the country has embarked on a plan to restore water to nature, and doubled this contribution from 15 million cubic meters in 2010 to 31 million cubic meters in 2012.

The water supply is now sufficient to meet future crises, and to allow the Israeli water economy to prepare for future drought periods in the region and the effects of climate change.

An increase in the frequency, intensity and duration of droughts in Israel is anticipated in the coming decades. During the current recovery period, Israel is producing climate models and performing simulation in order to prepare.

"Israel Invested $825 Million USD in Water Infrastructure in 2012", 12/03/2013, online at: **http://www.ooskanews.com/daily-water-briefing/israel-invested-825-million-usd-water-infrastructure-2012_27122**

BACK TO TOP

❖ An Israeli winter: Early rains evaporate after two dry months

Low rainfall in February and March wiped out record amounts of precipitation in December and January, according to Israeli Meteorological Service.
By Zafrir Rinat | Apr.10, 2013

February and March this year were the driest for the past 50 years and overturned the country's precipitation balance, which had looked promising at the beginning of winter, Israel Water Authority and Israel Meteorological Service figures show

Last month was one of the warmest Marches since climate measuring began in Israel, with temperatures climbing 2-4 degrees higher than the multi-year average for this month, the Meteorological Service said. The meager rainfall was only 20-40 milliliters in the north, compared to a multi-year average of 90-120 milliliters.

The rainfall in February was the lowest recorded in the past 70 years, with the exception of the winter of 1958. However, the Water Authority said this winter's rain quantity totaled 109 percent compared to the multi-year average.

In the Kinneret area the rainfall was 114 percent compared to the multi-year average, due to the rains that fell at the beginning of winter and also raised the lake's water level.

The largest precipitation quantity (1,270 milliliters) was measured at the lower station of the Mount Hermon ski slope cable car. In Kibbutz Ma'abarot in the Sharon Plain the rainfall totaled 122 percent compared to the average.

The sharp rise in the Kinneret's water level in December-January slowed down in February due to the cessation of rainfall. In March the level rose by only 23 centimeters.

Altogether, the rains added 454 million cubic meters of water to the Kinneret, leaving its level 1.5 meters higher than it was last March.

Meanwhile, the Dead Sea level sank another 4 centimeters last month.

"An Israeli winter: Early rains evaporate after two dry months",Haaretz,12/04/2013, online at: http://mideastenvironment.apps01.yorku.ca/?p=7101

BACK TO TOP

❖ The politics of water: Palestinians bracing for another dry summer

On average, West Bank Palestinians have access to about 70 liters of water a day per person; inside the Green Line, communities use about 300 liters per person.
By Lauren Gelfond Feldinger | Apr.12, 2013

Deep beneath the Israeli coastline and the West Bank mountains, groundwater flows back and forth in ancient, natural stone basins, without impediment from the borders, barriers or checkpoints that separate Israelis from Palestinians. Aboveground, transboundary water, primarily controlled by Israel, streams into Israeli faucets year-round, but into West Bank Palestinian faucets only sometimes. Water shortages in Palestinian towns and villages are expected to begin in the next weeks, as the weather warms up.

Who owns and can benefit from the shared waters of the three sub-basins of the Mountain Aquifer system and the upper Jordan River basin? Is it the entry or exit point, or direction of the flow of the water, or is it the precedent of pre-1967 use that determines ownership? Since Israeli-Palestinian final-status negotiations to resolve such questions have still not taken place, the Emergency Water, Sanitation and Hygiene group − a coalition of 28 international NGOs working locally on Palestinian water- and sanitation-related projects − launched several campaigns to raise awareness of West Bank water shortages. EWASH's summer challenge, kicked off last year, wasn't as theatrical as Hollywood actor Matt Damon's recent call to boycott toilets until global water scarcity ends, but participants were asked to make sacrifices.

With the help of its partner organizations, particularly the Middle East Children's Alliance in San Francisco, EWASH signed-on 130 volunteers from the United States, Canada, and seven European countries to restrict themselves to 24 liters of water during one 24-hour period. On average, West Bank Palestinians have access to about 70 liters a day per person, although in some areas availability is as low as 15 liters, depending on the season. In contrast, Israeli citizens inside the Green Line or in West Bank communities utilize around 280-300 liters per person a day year-round, according to rights organizations, water NGOs and the Palestinian Water Authority.

The Israel Water Authority did not respond to repeated requests from Haaretz to confirm the figures and comment on West Bank water shortages.

Those who volunteered to limit their water usage ranged from college students to retirees, and included Christian clerics, and Jewish, environmental and social-justice activists, recruited by the participating water organizations, via mailings, word of mouth, and social media. Semi-retired factory worker Jenefer Israel, 52, of California, said 25 liters was the bare minimum she could use, even though she gave up her shower and asked a family member to tend to her animals and vegetable garden. She used 14 liters to flush the toilet twice, nine liters to disinfect her goats' milking equipment, and two liters for drinking, washing hands, preparing food and brushing her teeth.

Eleanor Roffman, 69, a professor of psychology and counseling at Lesley University in Massachusetts, had to give up her daily shower, laundry and dish-washing she said. Roffman and Israel said it was manageable − but only because it was for one day. Insurance company employee Franceso Penzo, 39, of Venice, Italy said the experience made him decide to limit his water usage every day and to work to help raise awareness about West Bank suffering.

"In Italy I can choose to reduce the water I use [but] the Palestinians have no choice," Penzo told Haaretz.

Indeed, in the West Bank village of Beit Jala, situated in the Bethlehem district near Jerusalem, Juliet Bannoura, 34, a mother of 2-year-old twins, is dreading the long days when it gets hot and her tap goes dry.

"Every year it is worse than the year before. Sometimes the water goes off for 10 or 15 or 20 days, and sometimes for two months," Bannoura said. "You never know."

In summer, says Bannoura, there is only enough water to bathe her children twice a week, if she buys bottled drinking water and gives up watering her vegetable garden and washing her floors. She also said that her family often wakes up at 2 or 3 A.M. to check for running water, to do laundry or water the plants. But Bannnoura considers herself lucky, compared to many of her Palestinian neighbors. "My parents − in Beit Sahur, where I grew up, on the other side of Bethlehem − have a well. I take my laundry to my parents' house and take baths there, but only once a week, so they don't run out of water either," she said.

Many homes in the West Bank have roof cisterns to collect water for times of shortage. When those quickly run out, they fill their empty cisterns with expensive and not necessarily safe-for-drinking water brought in by the government or private tankers. Palestinians with no water pipes or infrastructure – so no ability to connect to the water system – are dependent on collecting rainwater and purchasing supplies, if they can afford it.

A few kilometers from Bethlehem, in the Jewish settlement of Rosh Tzurim, Yael Samuels, 36, a mother of five, said that in the summer, baths and laundry are part of the family's daily life. Disturbed to learn that her Palestinian neighbors do not also have unlimited access to water, Samuels said that families "can't be without water in the pipes," and added that, "the only problem we have is with pressure if more than one person bathes at a time."

"There are often [water] shortages in the West Bank," explained Alex Abu Ata, head of EWASH's West Bank advocacy task force. "Israel agrees to sell some water to Palestinians but it has a quota … and those quantities don't alleviate the problem. Israel will also sell [Jewish] settlements treated, recycled agricultural water at a much cheaper price than drinking water; Palestinians don't have this option."

Power asymmetry

Since 1967, Israel has controlled the major underground West Bank water sources. The 1995 Oslo II agreement allocated specific amounts for West Bank Palestinians, based on estimated annual use and projected future use. International transboundary water consultant David Phillips, who has advised Palestinian negotiators, charges that the Oslo agreement expired in 2000, and was always inequitable.

Phillips wrote in an e-mail to Haaretz from Africa that Palestinians signed the agreement "because of the power asymmetry in the mid-1990s, coupled with the inexperience of the Palestinians in negotiations and the failure of the US 'facilitator' to demand a more equitable outcome." Phillips urges Israel to "negotiate in good faith with Palestine to attain an equitable and reasonable allocation of the shared fresh water resources, taking into account any other water resources to which either party has access."

Today, West Bank Palestinians who are connected to the water system pay the Palestinian Water Authority for water, about two-thirds of which comes from the transboundary water pumped by Israel. The rest comes from local sources, including wells, which have very limited supplies.

Palestinians, who need approval from a joint Israeli-Palestinian committee for construction or repair of water infrastructure, complain that requests for permits are denied, or delayed for years, because of the Israelis veto capability. For Palestinians living under full Israeli control in Area C, there is inadequate infrastructure, and permits for building wells or cisterns are required from both the Joint Water Committee and Israel's Civil Administration. (See "Liquid asymmetry," by Amira Hass, Haaretz English Edition, April 4, 2013.)

Palestinians and rights groups charge that Israel is not abiding by international humanitarian law, including the Universal Declaration of Human Rights and the Fourth Geneva Convention, article 27, on treating people living under occupation humanely and without prejudice. The as-yet unenforced 1997 UN Watercourses Convention is also referenced as a framework for sharing transboundary water resources, based on the principle of equitable and reasonable utilization, and shared management.

Based on international law, Palestinian officials and water and human rights advocates demand sufficient quantities of water for personal and agricultural needs, shared management, freedom of travel in the West Bank for water tankers, and an end to demolition of or denial of permits for wells, cisterns and pipes. Thirty-six West Bank rainwater cisterns were demolished by Israel in 2012, according to the UN Office for Coordination of Humanitarian Affairs. Israel's Civil Administration accuses Palestinians of building water infrastructure without permits and Palestinians accuse Israel of not issuing permits. In a 2012 report, the PWA acknowledges the existence of illegal West Bank wells, but says that while it tries to prevent them from being dug, it should be noted that they are shallow, and do not tap into the groundwater of the transboundary sources.

Shimon Tal, Israel's water commissioner from 2000 to 2006, believes that the Isralis and Palestinians are at loggerheads because while Palestinians look to international law for solutions, Israel bases its water sharing arrangement on the 1995 agreement. Tal acknowledged, however, that the agreement does not provide "enough [water] for Palestinians because this agreement was meant to last for only

five years and now it is almost 20 years … Israel supplies more than it is obliged to, according to the agreement, but the situation in the West Bank is not good."

Tal suggests that each side take steps to meet the other in the middle, explaining that "the water issue is political and unfortunately tied to the other [final status] issues." "I urge Palestinians to concentrate on practical solutions to solve part of the problem, so no side feels it is giving up its principles. But Palestinians go back to water rights and I think water rights won't be solved until the final agreement. In the end, Palestinians will get more, Israelis will get less, but meanwhile, water resources are not sufficient, and we need to think about additional water sources."

One such interim solution, Tal suggests, would be for Palestinians to build a water system based on desalination in the northern West Bank near Jenin, which would be possible only with Israeli cooperation for permits and donor funds, he said.

The Israel Water Authority, which declined to speak to Haaretz for this article, said in a 2009 report that the Palestinian focus on international law and "geographical-hydrological factors" does not take into consideration that Israel used West Bank aquifers prior to 1967, in what is known in law as "the principle of maintaining existing uses of water."

The report also argued that "the proposition of solving the problem of Palestinian water shortages by exacerbating Israel's water scarcity is utterly unacceptable. Only realistic, fair and just solutions must be sought."

On Friday, March 22, World Water Day, EWASH led more than 200 volunteers to visit Palestinian communities in the northern Jordan Valley that are suffering from water shortages.

In the village of Al-Hadidiya, there are "20 liters of water available per person per day, compared to its neighbor, the Jewish settlement of Ro'i, which uses 431 liters per person per day, according to B'Tselem," said Alex Abu Ata. "Israel drilled a well on land that Al-Hadidiya claims ownership on since Ottoman times, but the water is for the exclusive use of Ro'i."

As Palestinian families across the West Bank that have flowing water during winter get ready now for the period of tap water shortages by filling up their cisterns, Dr. Clive Lipchin, director of the

Arava Institute for Environmental Studies' transboundary water management center, told Haaretz that despite some cooperation between Israelis and Palestinians on finding technical solutions to the crisis, "this has not translated into the regional transboundary policy needed for more equitable water management."

"Palestinian water needs should be met," says Lipchin, "without having to wait for a final settlement."

"The politics of water: Palestinians bracing for another dry summer", Haaretz, 12/04/2013, online at: http://mideastenvironment.apps01.yorku.ca/?p=7103

BACK TO TOP

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

❖ Gaza Water Initiative Supported By Israel, May Receive Funding From Gulf

Days before the latest round of fighting between Israel and Hamas erupted in November, international diplomats gathered at the French Consulate General in Jerusalem to discuss an ambitious diplomatic initiative that would convene Israel, the Palestinian Authority, Jordan, the Gulf states, and the European Union to jointly support the construction of a Gaza desalination plant that would ultimately help secure clean water access for the coastal enclave.

Although the Gaza water initiative is spearheaded by the Union for the Mediterranean, the proposed construction project received its diplomatic backing—and ultimate go-ahead—from the Middle East Desalination Research Center (MEDRC), a Muscat, Oman-based organization seeking to advance quiet diplomacy between Israel, the Palestinian Authority, and the Arab states.
At a recent MEDRC Executive Council meeting held in early January, the organization unanimously supported construction of the Gaza desalination plant by passing the following resolution, "The members of the MEDRC Executive Council unanimously support the development and the establishment of the Gaza desalination program and they offer MEDRC's full assistance."

Shortly after the resolution passed, MEDRC Chairman and Secretary General of Oman's Ministry of Foreign Affairs Sayyid Badr Al-Busaidi said in an interview that it was "heartwarming to see the executive council adopt the desalination plant resolution for Gaza."

The senior diplomat also noted that the current water situation in Gaza "is of great concern and if this is not addressed there will be a problem in hand." Nonetheless, he encouraged "the stakeholders and international community to step forward" by supporting the construction project.

"Despite being a small organization," Mr. Al-Busaidi also expressed "optimism" that MEDRC can participate in the Union for the Mediterranean project by continuing "to play a constructive role by convening the core parties [of the Middle East peace process] by supporting MEDRC's mission to address the scarcity of water for the region as a whole."

Since its 1996 inception, MEDRC has served as a research and capacity building institution tasked to share expertise on desalination technologies and clean fresh water supply with the peoples of the Middle East and North Africa.

Meanwhile, commenting on the urgency for improving Gaza's water security, the Chairman of the Palestinian Water Authority (PWA) Shaddad Attila said in a recent email interview that presently "more than 90 percent of the groundwater produced in Gaza does not comply with international standards set by the World Health Organization and the European Union." Mr. Attila also revealed that the approximately 1.7 million Palestinians living in Gaza are "exposed to very high levels of risk" as "the aquifer is showing clear signs of imminent failure or collapse, with rapidly advancing saline intrusion."

Responding to whether the Gaza water initiative can be linked to the peace process, Mr. Attila said, "Without an alternative source of fresh water to Gaza, there can be no development, no economy and no life. Thus, securing sufficient water supply is essential to the establishment of a viable and prosperous Palestinian state."

Although MEDRC has no ties with Hamas, the organization has nonetheless successfully arranged for participants from Gaza, Jordan, and the West Bank to attend courses on desalination and waste water management in Tel Aviv.

Last month, Israeli, Palestinian and Jordanian officials convened at a MEDCR water strategy session at a Jordanian resort. At the meeting, the parties reviewed "best practices for the application of desalination technologies and water resource management," MEDRC Director Ronald Mollinger revealed. Additionally, the parties also discussed measures on how to improve issues ranging from waste water reuse, water loss recovery and water savings, billing and how to effectively regulate the water sector, he said.

"When we started two and a half years ago with the courses they took one week. Now we are talking about four times as long," Mollinger added.

PWA Chairman Attila also encouraged regional cooperation to solve Gaza's emerging water crisis as he stressed that "the deterioration of the Transboundary Aquifer has certain impacts on the neighbors Egypt and Israel who should share an interest in protecting this shared source of fresh water."

Acknowledging Oman's positive leadership role on the Middle East peace process, the Obama administration approached Muscat to begin steps towards normalization with Israel as an incentive to

restart talks between Israel and the Palestinians, reported the Israeli *Haaretz*newspaper. While normalization efforts between the two countries collapsed after the Jewish state decided not to extend a settlement freeze, MEDRC's framework as a multilateral forum for Arab-Israeli diplomacy remains intact.

MEDRC's executive council is composed of senior officials from all the member countries, which include Israel, the Palestinian Authority, Jordan, Oman, Qatar, the United States, Spain, France, the Netherlands, Japan and South Korea.

As a supporter of the Middle East peace process, Oman was the only Arab League member not to boycott Egypt after its 1979 peace treaty with Israel. Oman also enjoys friendly relations with Iran and has repeatedly served as a mediator between Tehran and Washington.

Meanwhile, in the midst of the latest round of fighting between Israel and Hamas, the Union for the Mediterranean nonetheless convened diplomats and representatives from a cluster of international organizations, including from the Islamic Development Bank to attend a donor conference for the Gaza water initiative in Barcelona, Spain.

Aside from potential funding from international development banks, it is also anticipated that Qatar may play a lead role in funding the construction of the Gaza desalination plant, which is expected to cost 450 million USD.

Qatar's ruler, Emir Hamad bin Khalifa Al Thani, became the first head of state to visit Gaza since Hamas took control in 2007. Since his landmark visit in October, Al Thani also announced that he will pay Palestinian President Mahmoud Abbas a visit later this spring.

Commenting on Al Thani's upcoming visit, PWA Chairman Attila said, "Qatar has been a great supporter of Palestinian needs. We are quite sure that Qatar will support this project once the Emir is updated on the urgency of the water supply issues in Gaza."

Attila added that Qatar is "used to respond quickly and generously to the priority needs raised, especially in Gaza which suffers a clear deteriorated economical situation due to the Israeli siege."

An unnamed official who attended the Barcelona meeting revealed that "a strong case was made to the donor community" on the "strategic importance" of the Gaza desalination project.

The diplomat added that although it was unclear what Hamas' official position on the matter is, he nonetheless acknowledge that so far "informal water cooperation has been constructive."

"The PWA and Hamas agreed on the land where the plant should be standing, which is in the central part of the coastal enclave, south of Gaza City," he said.

On whether Israel's Gaza blockade could prevent the desalination project from taking place, the diplomat revealed that over the last couple of years "large donors have found ways to coordinate with Israel to bring in supplies. Israel has never objected against this project, including the army," he said. The diplomat also expressed confidence that "coordination with the Israeli side will be successful."

An Israeli official declining to publicly comment on the Gaza water initiative, due to the sensitivities of the project, nonetheless acknowledged that Israeli government policy fully concurs with the recently passed MECRC resolution.

"Gaza Water Initiative Supported By Israel, May Receive Funding From Gulf", 12/04/2013, online at: http://www.foreignpolicyjournal.com/2013/04/12/gaza-water-initiative-supported-by-israel-may-receive-funding-from-gulf/

BACK TO TOP

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

❖ Israel Denies Palestinians Equal Water Access

AL-KHADER, West Bank — In the small, cement and brick homes on the parched hill of al-Khader, a West Bank village near Bethlehem, the Musa family does not have running water, let alone any to irrigate their arid grape and olive field.

Under a baking sun, children roam barefoot on bone-dry soil while women hang faded clothes on wires. Their father, Ahmad Musa, says their only source of water is the expensive tankered water that often requires a long wait.

"We use water just for the bare minimum, drinking, cooking and washing," Musa told *Al-Monitor*. "Everything else is out of the question."

According to Palestinian rights group al-Haq, some 313,000 Palestinians across 113 communities in the occupied West Bank are not connected to a water network.

In 1967, the year Israel occupied the West Bank, East Jerusalem and the Gaza Strip, water resources were brought exclusively under Israeli control. Al-Haq says since then, Palestinians have been denied access to their rightful share of water and have been severely restricted in their ability to develop their water resources.

Musa, a father of six children, says three years ago he tried to build a rainwater cistern in his field, but the Israeli authorities quickly issued it with a demolition order, citing a lack of a building permit. Fearing demolition, he immediately stopped building.

According the United Nations Office for the Coordination of Humanitarian Affairs, the practice of demolishing Palestinian wells and water reserves in the West Bank has intensified in recent years, with over 200 structures demolished between 2009 and 2011. And permits are nearly impossible to obtain.

Musa says if they had access to sufficient, affordable water, his family would be able to live off their ancestral field, selling their grapes, olives and fruit in nearby markets.

That, he says, is the reason why Israeli authorities prevent them from building a cistern, and why they do not have any running water.

"They don't want us to plant or grow anything, they just want us to have barely enough water for drinking and that's it," Musa says looking at the unfinished, empty hole in the ground.

Relying only on scarce rainfall, his 60 gnarled, sunbaked trees only produce enough to feed his own family, he says.

He works in construction in nearby villages and is barely able to make ends meet.

Lion's share to the Israelis

Under the Oslo agreements signed in 1993, Israel controls the vast majority of West Bank water resources by retaining full control over "Area C," 60% of the West Bank where the water is most plentiful.

International and local rights groups say Israel allocates far more water to Israeli citizens and Jewish settlers than to the Palestinians.

A report released Monday by al-Haq says Israel claims up to 89% of an underground aquifer that is largely located in the West Bank, giving Palestinians only access to the remaining 11%.

The report says Israel's insufficient allocation of water has forced Palestinians to rely on Israel's national water company, Mekorot, to meet their needs.

A UN fact-finding mission in January found that Mekorot supplies almost half the water consumed by Palestinian communities.

Some 4.2 million Palestinians live in the West Bank, Gaza Strip and East Jerusalem, consuming, al-Haq says, on average 73 liters [almost 20 gallons] of water per capita per day. While 7.7 million Israelis consume an average of 300 liters.

The more than 500,000 Jewish settlers living in the West Bank, al-Haq says, consume approximately six times the amount of water used by the West Bank's 2.6 million Palestinians.

The World Health Organization recommends 100 liters of water per capita per day as the minimum quantity for basic consumption.

The direct results are clearly visible.

While fruit orchards in the farming town of al-Khader, south of the city of Hebron, are dry because they rely only on scant rainfall, a settler farm across over the hill is lined with black pipes for constant dripping.

Losing battle for Palestinians

Tawfiq Salah, mayor of al-Khader, says some homes in the village receive only an intermittent supply of water, and some living in more elevated areas, receive no water at all.

The vast majority in the village of 13,000 rely on tankered water, according to Salah.

A cubic meter of water coming from the water supply costs 6 shekels ($1.60), he says, while tankered water costs 19 shekels ($5.20), exasperating a community already battling poverty and unemployment.

"There is a grave injustice in the division of water, and the results have been catastrophic on al-Khader," Salah told Al-Monitor.

Shadad Attili, head of the Palestinian Water Authority, says Palestinians purchase 56 million cubic meters of water a year, mostly for domestic consumption to make up for the severe shortage.

"We have been turned into Mekorot's best clients," Attili told *Al-Monitor*.

Attili says as long as the peace talks with Israel are on hold, equal access to water will remain a constant losing battle for Palestinians.

Distribution of water resources, the status of Jerusalem, the borders of a future Palestinian state, the Jewish settlements and the fate of Palestinian refugees are "final status issues" to be resolved in peace negotiations — halted in 2010 over Israel's refusal to stop expanding settlements.

With little hope for a resumption of talks in the near future, Atilli says Palestinians will continue to receive an unequal share of water and face restrictions on developing their supply systems.

Multiple attempts by *Al-Monitor* to reach an official at the Israeli Water Authority for comment failed.

Not just about water

For most Palestinians living in Area C of the West Bank, it is impossible to separate the struggle over water from any of the other Israeli restrictions imposed.

Despite having proof of ownership of the land dating back to 1926, the Musa family home, as well as that of his father and two brothers, was demolished three times, citing a lack of building permits.

But the pressure to remain on the land remains strong, he says, not least because they have nowhere else to go. They rebuilt their homes after each demolition.

The al-Haq report says Israel's discriminatory water policy in the West Bank is intrinsically linked to its settlement expansion strategy.

By imposing a draconian permit regime and demolishing structures without them, Israel aims to "forcibly transfer Palestinian communities from their homes," the report said, "which is instrumental to Israel's unlawful transfer of its own civilian population into occupied territory."

According to a European Union report issued last year, in 1967 between 200,000 and 320,000 Palestinians lived in Area C of the West Bank. But demolition of Palestinian homes and structures, and the prevention of new buildings, has seen the population drop to 150,000.
Meanwhile, the settler population in Area C has grown from 1,200 to 310,000, the report said.
"Our struggle here is at once all about water and nothing to do with it," Musa says.

"Israel Denies Palestinians Equal Water Access", 12/04/2013, online at: http://www.al-monitor.com/pulse/originals/2013/04/westbank-water-restrictions-israel.html

BACK TO TOP

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

❖ Palestinian farmers thirsty for exports

A lack of water because of Israeli restrictions and a system of checkpoints make it harder for farmers to prosper.

Jordan Valley, West Bank - Agriculture has long formed a pillar of Palestinian society, bringing in much-needed income and creating a bond between man and land.

Today, this sector is suffering, both because of the Israeli occupation and alleged negligence by the Palestinian Authority. This is the bleak picture that Zuhair Manasrah draws on as he speaks of the date company he runs.

Located in the Jordan Valley, known as the breadbasket of the Palestinian territories, Nakheel Palestine (Arabic for "Palm trees of Palestine") is the largest company to grow, package and export dates all under one roof.

"There are many obstacles to farming here, Israeli restrictions to land and water being some of the main ones," said the 69-year-old Manasrah. But his love for the land ultimately brought him into agriculture after a long political career, which included serving as governor of Jenin and Bethlehem.

Just beyond the walls of his plant, one can see what he is talking about. All around, rows of settlement houses stipple the higher elevations. For Palestinians here, water is hard to come by, and permits to dig wells are hardly ever given by Israeli authorities. But the precious liquid is copiously available for Israeli settlers nearby.

According to B'Tselem, an Israeli human rights group, "44 million square metres of water a year is allocated to fewer than 10,000 settlers living in the Jordan Valley and the northern Dead Sea area. This amount is almost one-third the amount of water accessible to the 2.5 million Palestinians living in the West Bank."

This unequal water distribution has allowed settlements to thrive while reducing the amount of Palestinian land cultivated, thus leading to a decline in the competitiveness of crops.

Israeli response

Ilana Stein, the Israeli Ministry of Foreign Affairs' deputy spokesperson, said B'Tselem's findings are partial and incorrect.

"The provision of water in the Palestinian Authority (PA) areas of jurisdiction is under their responsibility; they decide on these issues so if the distribution is somehow lacking the questions regarding that should be addressed to the PA," Stein said.

"Some of these matters could have been resolved if the PA would have accepted desalinated water from Israel, or invested in their own desalination programs. [Moreover] water to the Israeli residents in the West Bank comes from Israel and has nothing to do with the Palestinian quotas of water."

Manasrah first began his date-farming venture after he retired from politics and went back to his village of Bani Na'im near the southern West Bank city of Hebron, to fulfill a childhood dream of becoming a farmer. There, he grew olive, almond and grape trees.

His work ultimately led him to Jericho, where he found the idea of raising date trees lucrative. "I quickly discovered that marketing and selling dates was the key to success, especially since a sealing and packaging plant was something that we lacked in the area," he said.

He started off with 5,500 trees, built a plant unmatched in size and equipment, and the export business took off. But Manasrah eventually hit a financial wall and with no liquidity in tow, he resorted to Palestinian banks for loans. After he was turned down, he merged with another date-producing company that led to the birth of Nakheel Palestine.

According to Manasrah, Palestinian financial companies, aware of this political landscape, are loath to invest in the agro-business sector, while international donors are fearful of pouring in money because most agricultural land, including his date farms, are located in Area C. Under complete Israeli control, Area C constitutes some 60 percent of the entire West Bank, and contains the largest network of water supplies and arable land.

Agricultural decline

Today agriculture only contributes 4.6 percent of the Palestinian Gross Domestic Product (GDP), down from some 13 percent in 1994, just after the Oslo Accords were signed.

In a report released in March, the World Bank said the share of exports in the Palestinian economy has also been in steady decline since 1994, dropping to 7 percent of GDP in 2011.

A system of checkpoints and movement restrictions have led to a contraction in the agriculture sector, which is something that Manasrah echoed as he described the state of the industry.

"Restrictions on movement of people and goods directly impact our date production, while exports tend to be more expensive because Israel controls all entry and exit points from the West Bank," he said.

A back-to-back system - one where goods are unloaded at Israeli checkpoints, then loaded onto other trucks on the other side - increase costs and decrease profitability, making Israeli dates more

competitive. Sometimes farmers are even forced to resort to Israeli companies because they cannot access Israeli ports.

The Israeli government spokesperson said it is not checkpoints that hurt the Palestinian economy but the "violence" in the West Bank. "Having said that, the number of checkpoints has decreased dramatically in the [p]ast years and movement across the West Bank [has become] much easier," the spokesperson said. "Most of the checkpoints are [at] the entrance to Israel and this does not interfere with the day-to-day life of Palestinians."

Manasrah attributes some of the difficulties in agriculture to the PA's priorities. "The PA is aware of the conceptual importance of investing in agriculture, but not in practical terms," he said. "That's apparent by the little it has allocated to the agriculture sector."

Less than 1 percent of the PA budget is earmarked for agriculture, and Manasrah stressed that not much is done in way of introducing Palestinian dates to the world market.

"As we marketed our goods abroad, we noticed that many people did not know there's such a thing as Palestinian dates," he added, noting there is a lack of infrastructure and service centres to cater to the needs of the agro-business sector.

'No border control'

The PA has acknowledged that there is much to do to help farmers, and lamented the "denied potential" of the agriculture sector.

"It's not a matter of whether it's our priority, it's a matter of being prevented from implementing policies that support agriculture," said Nour Odeh, the Palestinian government spokeswoman. "Part of the problem is that we have no control over borders, and the majority of arable land is in Area C."

In a report submitted to a forum of donors dubbed the AHLC (Ad-hoc Liaison Committee), the PA estimates that the additional potential for agricultural production in Area C alone could reach $2.25bn annually. The report includes a Palestinian action plan focusing on projects to develop this area and shows that agriculture is part of the government's newest set of priorities.

Nakheel Palestine today owns more than 20,000 trees and employes some 100 people. During harvest, these numbers can double depending on the season and production. There are plans to double those tree figures and triple production to 3 tonnes of dates per hour. This means injecting $4.6m of investment into the company.

It's unclear whether this target will be met in light of the hurdles described by Manasrah. "The Palestinian farmer has to harvest the land, find the necessary water sources, buy the machines and market the goods. This is a heavy burden for any investor," he said.

"Palestinian farmers thirsty for exports", 10/04/2013, online at:
http://www.aljazeera.com/indepth/features/2013/04/20134312648559299.html

BACK TO TOP

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

❖ Palestinian NGO accuses Israel of 'water apartheid'

A report by a Palestinian NGO has accused Israel of practicing "water apartheid" and depriving Palestinians of their “rightful water supply.” Israel's Water Authority has dismissed the report as a “political weapon.”

Titled “Water For One People Only: Discriminatory Access and ‘Water-Apartheid’ in the Occupied Palestinian Territories,” the report is a product of the Ramallah-based non-governmental organization Al-Haq.

The document slams Israel for providing “discriminatory access” to water and enacting “water apartheid” policies that result in the 500,000 Israelis in the West Bank and east Jerusalem receiving six times the amount of water that the 2.6 million Palestinians in the same area do.

Although Israel has integrated the Palestinian water system with the Israeli one, the government denies the Palestinians control over their resource – forcing them to rely primarily on water from Mekorot, Israel’s national water company, the report argues.

Before the 1995 Oslo II Accords, the Palestinians expected that such an agreement would grant them more undisputed access to their water resources, yet the pact “merely formalized a discriminatory management regime that was largely already in place,” according to the Al- Haq document. The authors blast Israel for maintaining exclusive control over the Mountain Aquifer and accuse Mekorot of continually reducing Palestinian water supplies to satisfy settlement water needs during the summer months.

Describing Israel’s role as that of an “occupying power,” the authors go on to criticize the country for violating international humanitarian law, under which is it not supposed to receive sovereign rights over the occupied territory or its natural resources.

“Israel has extensively and unlawfully appropriated Palestinian water resources in the Occupied Palestinian Territories for the sole benefit of those residing in Israel and Israeli colonies, while

maintaining a practice of extensive destruction of Palestinian water infrastructure," the report says.

Due to the country's so called exploitation and appropriation of Palestinian natural resources, the authors of the report deem Israel a colonial nation. Whereas Jewish Israelis have the privilege of "an uninterrupted and abundant supply of water," Palestinians "are denied their basic right to water and full development as a group," the authors write.

The authors recommend that Israel and third-party states take immediate steps to end the situation and devise structural changes to the management system for shared water resources. In the short and intermediate term, such changes would entail removing the physical obstacles the Palestinians face to accessing water resources, as well as ceasing Israeli extraction of water from the Palestinian portion of the trans-boundary resource, the document says. In the long-term, however, the authors believe that the only solution to a proper division of water resources will be the establishment of an independent Palestinian state.

In response to the document, the Israeli Water Authority stressed that "it was not for nothing" that both sides signed the Oslo agreement, which also received the approval of the United States, Russia, the European Union, Norway, Egypt and Jordan.

"It is surprising that the Palestinian Authority uses the subject of water as a 'political weapon' while the water agreement granted the Palestinians quantities of water and well-being that they never had before," the Water Authority said. "If only the Palestinians were focused on implementing the agreement as written – the situation would be even better than it is today."

Aiming to disprove many of the assertions made through the report, the Water Authority provided a detailed list of water consumption data for both West Bank Jews and Palestinians.

The Water Authority stressed that Israel uses less water from the Mountain Aquifer than in 1967, while the Palestinians are drawing much more from the aquifer compared to before 1967. Meanwhile, settlers use less water than Israel sends into the West Bank, the authority said.

Palestinians consume about 190 million cubic meters of water per year, compared to 60 million cubic meters in 1967 and 118 million cubic meters in 1995 – the year the accords were signed, according to Water Authority data. Whereas only 10 percent of Palestinians in the West Bank were connected to an organized water system before 1967, 95% are today, making their conditions much better than those in most capital cities of Arab countries neighboring Israel, the authority said.

Countering the report's claims that Israel has sovereign power over decisions regarding water distribution, the Water Authority noted that the Joint Water Committee includes representatives from both Israel and the PA, with the sides enjoying equal status. The Joint Water Committee has approved hundreds of projects, most of which are Palestinian and of which 100 are water wells, the authority added.

To help the Palestinians develop their water system, Israel provides Palestinian water professionals with training and courses on sanitation, waste-water treatment, water reuse and desalination, the Water Authority response stressed.

Opposing the claims that Israel has been violating the Oslo Accords, the Water Authority said that the Palestinians are the ones infringing the agreement. Although the PA is required to purify its sewage, it does not and instead sends about 17 million cubic meters of sewage into Israel annually, the authority noted. This occurs despite international offers worth hundreds of millions of dollars to upgrade the Palestinian water sector, the response continued. In addition, the PA loses more than 33% of its water due to faulty water pipes, and by reducing losses and treating sewage, could increase its usable water supply by 50 million cubic meters annually, the Water Authority said.

"The report seeks to absolve the Palestinian Authority of its commitments according to the agreement that was signed by them, and makes demands of the State of Israel far beyond what was agreed upon in the water accord," the Water Authority said.

"Palestinian NGO accuses Israel of 'water apartheid'", 11/04/2013, online at: http://www.jpost.com/NationalNews/Article.aspx?id=309419

BACK TO TOP

❖ Experts: study ancient Jordan to solve today's water problems

Amman, Apr. 11 (Petra)--Dr. Fawwaz Al-Neesh, a researcher in the field of canals and methods of irrigation at the Iraqi University of Mosul, on Thursday urged experts in agriculture, water resources and archeology to study irrigation systems and methods of water collection in ancient civilizations to solve today's water problems in Jordan.

During a lecture at the faculty of archeology and tourism at the University of Jordan, Al-Neesh said: "The problem of water scarcity in Jordan can be solved by studying irrigation projects in old civilizations that existed in the region or in surrounding regions." He pointed out the possibility of benefiting from irrigation methods used by the Assyrian civilization in northern Iraq.

Further, Al-Neesh said there are solutions that could be adapted using modern information and technology systems to study methods of water conservation, environmental protection and preserving water quality that had been used by ancient civilizations.

"Experts: study ancient Jordan to solve today's water problems", 11/04/2013, online at: http://www.petra.gov.jo/Public_News/Nws_NewsDetails.aspx?Site_Id=1&lang=2&NewsID=106894&CatID=13&Type=Home&GType=1

BACK TO TOP

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

❖ Israeli settlers use six times more water than Palestinians — new report

Israeli settlers in the West Bank consume six times as much water as Palestinians living nearby, the human rights organization Al-Haq has found.

In a new report released today, the organization exposes how Israel operates a system of water apartheid. Palestinian communities are strangled by Israel's water policies through unlawful exploitation and appropriation of water resources, confiscation and destruction of water infrastructure and restriction of water supply, it says.
Al-Haq concludes that Israel's water apartheid policies are based on three pillars. The first pillar concerns the distinction between two racial groups. The second pillar consists of the policies and practices that facilitate the segregation of the population into different geographical areas. The third pillar rests upon the use of "security" laws to "justify" inhuman acts against Palestinians.
It is important underscore that Israel's water policies are part of an institutionalized system of domination and oppression.

Two distinct groups

The first pillar of water apartheid requires the distinction of two groups, which is a core element of the crime of apartheid. The first group are the Palestinians who over the years have been unwillingly sub-divided into Palestinian citizens of Israel, Palestinians living in the West Bank and Gaza, and Palestinian refugees living in exile. All are Palestinian, because of their identity as the indigenous people of historic Palestine. In addition, their right to self-determination is internationally recognized.

The second group is composed of Jewish-Israelis, meaning "Israelis with Jewish identity," an official category imposed and monitored by the State of Israel. It recognizes a person as a member of the global Jewish community, thereby granting certain rights, such as residency. The Basic Laws — the closest thing that Israel has to a written constitution — distinguishes the group as "Jewish nationals." While Palestinians living in Israel can be citizens, nationality of Israel is reserved for Jews.

Segregation

Israel has used the distinction between the Palestinian and Jewish-Israeli groups to segregate the population into different geographical areas — the second pillar of water apartheid. Inside Israel, the distinction is used to grant citizenship to only those Palestinians who remained inside Israel after 1948. At the same time, Israeli citizenship is granted beyond its territory to all Jews, regardless of their geographical location, personal history or affiliation to the territory.

In the West Bank, the segregation policies have resulted in two parallel and unequal societies. A privileged Jewish-Israeli settler society lives in illegal colonies with good conditions, including an uninterrupted, abundant supply of water. By contrast, the indigenous Palestinian society is denied most of its basic rights, including sovereignty over its own water resources.

Palestinians are forcibly confined to land-locked enclaves with minimum water resources available. As a result, Palestinian communities are strangled and cannot fully develop as a group: denying such development is considered an inhuman act under the UN's 1973 Apartheid Convention. The commission of inhuman acts against the subordinate group is the second core element of the definition of apartheid.

Strangulation

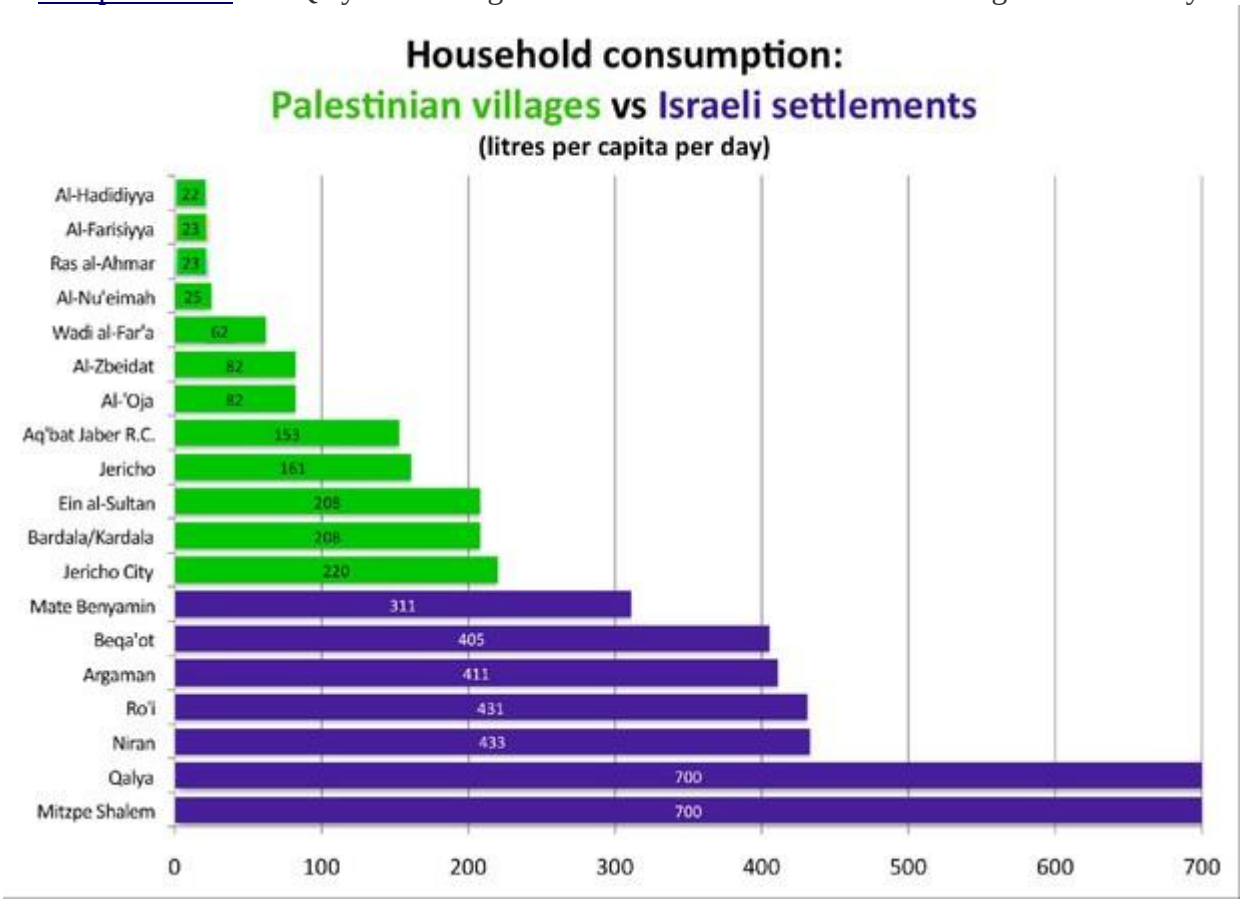
In its report, Al-Haq provides extensive information about how Israel's discriminatory water policies lead to the strangulation of Palestinian communities. For example, water apartheid policies result in huge differences in water consumption. For example, the consumption of more than 500,000 Israeli settlers in the West Bank is about six times higher than that of 2.6 million Palestinians in the West Bank.

Moreover, the Palestinian average water consumption of 73 liter *per capita* per day does not reach the minimum consumption level of 100 liters recommended by the World Health Organization (WHO). Israelis living inside Israel use about 300 liters and Israeli settlers in the West Bank use 369 liters each per day.

By September 2011, around 313,000 Palestinians were not connected to a water network. And about 50,000 Palestinians from 151 communities had to live on less than 20 liters each per day, an amount WHO recommends for "short-term survival" in emergency and disaster situations.

In occupied East Jerusalem, more than 50 percent of the Palestinians living there — around 160,000 people — do not have legal water connections because Israeli law does not allow it, mainly because the required housing permits are not issued. Furthermore, some Palestinian areas on the eastern side of the Israel's wall in East Jerusalem have been excluded from the boundaries of the city. This has left the residents of Beit Iksa, Kufr Aqab and Shuafat refugee camp with no access to municipal services, including water and sanitation.

In the Jordan Valley, water apartheid policies have resulted in extreme differences in water consumption between settlers and Palestinians, ranging from 700 liters per day in the settlements of Mitzpe Shalem and Qalya to a meager 22 liters for Palestinians in the village of al-Hadidiya.



The 1.6 million inhabitants of the Gaza Strip depend for their natural water supply solely on the Coastal Aquifer next to the Strip. But as a transboundary water resource, Gaza has to share it with Israel, which has access to other water resources. However, the Gaza Strip can use only one quarter of total extractions from the Coastal Aquifer.

A responsible use of shared transboundary water resources requires coordination, something which Israel refuses. As a result, the water quality in the Gaza Strip has progressively deteriorated due to over-extraction and pollution of the Coastal Aquifer. The deterioration is also partly due to Israel's policy of denying construction materials for wastewater treatment plants and other water-related infrastructure into the Gaza Strip. Therefore, about 90 to 95 percent of the water it supplies is unfit for human consumption. It is estimated that the quality of water in the Coastal Aquifer will continue to deteriorate and may become unusable by 2016, when, in the absence of any alternatives, the Gaza Strip could become unfit for human habitation.

Institutionalized oppression

The third pillar of Israel's water apartheid rests upon its "security" laws, policies and practices. The water policies and practices are integrated in an institutionalized system of Jewish-Israeli domination and oppression of the Palestinians as a group — thus amounting to a system of "water apartheid."

For example, by occupying the West Bank (including East Jerusalem) and the Gaza Strip in the 1967 War, Israel increased its direct control over water resources in the region with nearly 50 percent. Immediately after the war, the water system for the West Bank and Gaza was integrated into the Israeli system through a series of military orders which are still in force today. Israel declared the banks of the lower Jordan River a closed military zone, denying access to Palestinians. Furthermore, the construction of Israel's wall in the West Bank has given Israel control over 28 agricultural wells.

Demolitions

Israel has caused extensive damage to Palestinian water infrastructure during military attacks on the Gaza strip. For example, during Operation Cast Lead in late 2008 and early 2009, about 919 water wells, 229 irrigation pools and 243 water pumps were destroyed. Since 2005, more than 300 water wells have been destroyed in the so-called buffer zone.

In 2011, Israel demolished over 20 water wells, around 35 cisterns, and around 10 water tanks and springs in the West Bank (excluding East Jerusalem). At the same time, Israel confiscated 45 water, sanitation and hygiene structures in the same area. The water infrastructure was indispensable

Palestinian rural and herder communities. In 2012, Israeli forces demolished at least 32 water structures took place between January and October.

"Israeli settlers use six times more water than Palestinians — new report", 08/04/2013, online at: http://electronicintifada.net/blogs/adri-nieuwhof/israeli-settlers-use-six-times-more-water-palestinians-new-report

BACK TO TOP

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

❖ CHELLANEY: China's great water wall

Damming downstream flow to neighbors could trigger water war

The Chinese government's recent decision to build an array of new dams on rivers flowing to other countries seems set to roil inter-riparian relations in Asia and make it more difficult to establish rules-based water cooperation and sharing.

Asia, not Africa, is the world's driest continent. China, which already boasts more large dams than the rest of the world combined, has emerged as the key impediment to building institutionalized collaboration on shared water resources. In contrast to the bilateral water treaties between many of its neighbors, China rejects the concept of a water-sharing arrangement or joint, rules-based management of common resources.

The long-term implications of China's dam program for India are particularly stark because several major rivers flow south from the Tibetan plateau. India has water-sharing treaties with both the countries located downstream from it: the Indus pact with Pakistan guarantees the world's largest cross-border flows of any treaty regime, while the Ganges accord has set a new principle in international water law by assuring Bangladesh an equal share of downriver flows in the dry season. China, by contrast, does not have a single water-sharing treaty with any neighbor.

Yet most of Asia's international rivers originate in territories that China annexed after its 1949 communist "revolution." The sprawling Tibetan plateau, for example, is the world's largest freshwater repository and the source of Asia's greatest rivers, including those that are the lifeblood of mainland China, South Asia and Southeast Asia. Other Chinese-held homelands of ethnic minorities contain the headwaters of rivers such as the Irtysh, Illy and Amur, which flow to Russia and Central Asia.

China's dam program on international rivers is following a well-established pattern: Build modest-size dams on a river's difficult uppermost reaches, and then construct larger dams in the upper-middle sections as the river picks up greater water volume and momentum, then embarking on megadams in the border area facing another country. The cascade of megadams on the Mekong River, for example, is located in the area just before the river enters continental Southeast Asia.

Most of the new dam projects announced recently by China's state council, or Cabinet, are concentrated in the seismically active southwest, covering parts of the Tibetan plateau. The restart of dam building on the Salween River after an eight-year moratorium is in keeping with a precedent set

on other river systems: Beijing temporarily suspends a controversial plan after major protests flare so as to buy time — before resurrecting the same plan.

The Salween — Asia's last largely free-flowing river — runs through deep, spectacular gorges, glaciated peaks and karst on its way into Burma and along the Thai border before emptying into the Andaman Sea. Its upstream basin is inhabited by 16 ethnic groups, including some, like the Derung tribe, with tiny populations numbering in the thousands. As one of the world's most biologically diverse regions, the upper basin boasts more than 5,000 plant species and nearly half of China's animal species.

The decision to formally lift the moratorium and construct five dams — with work to start immediately on the Songta dam, the farthest upriver structure in Tibet — threatens the region's biodiversity and could uproot endangered aboriginal tribes. There is also the risk that the weight of huge, new dam reservoirs could accentuate seismic instability in a region prone to recurrent earthquakes.

No country is more vulnerable to China's re-engineering of transboundary flows than India. The reason is that India alone receives nearly half of the river waters that leave Chinese-held territory. According to United Nations figures, a total of 718 billion cubic meters of surface water flows out of Chinese territory yearly, of which 347 billion cubic meters (or 48.3 percent of the total) runs directly into India.

China already has a dozen dams in the Brahmaputra River basin and one each on the Indus and the Sutlej rivers. On the Brahmaputra, it is currently close to completing one dam and has just cleared work on three others. Two more are planned in this cascade before the dam-building moves to the water-rich border segment as the river makes a U-turn to enter India.

Asia awaits a future made hotter and drier by climate and environmental change, and resource depletion. The continent's water challenges have been exacerbated by consumption growth, unsustainable irrigation practices, rapid industrialization, pollution, environmental degradation and geopolitical shifts.

If Asia is to prevent water wars, it must build institutionalized cooperation in transboundary basins that co-opts all riparian neighbors. If a dominant riparian state refuses to join, such institutional arrangements — as in the Mekong basin — will be ineffective. The arrangements must be centered on transparency, unhindered information flow, equitable sharing, dispute settlement, pollution control and a commitment to refrain from any projects that could materially diminish transboundary flows.

International dispute-settlement mechanisms, as in the Indus treaty, help stem the risk that water wrangles could escalate to open conflict.

China — with its hold over Asia's transnational water resources and boasting more than half of the world's 50,000 large dams — has made the control and manipulation of river flows a pivot of its power and economic progress. Unless it is willing to play a leadership role in developing a rules-based system, the economic and security risks arising from the Asian water competition can scarcely be mitigated.

Brahma Chellaney is the author of "Water, Peace, and War: Confronting the Global Water Crisis" (Rowman & Littlefield, 2013).

"CHELLANEY: China's great water wall",08704/2013, online at:
http://www.washingtontimes.com/news/2013/apr/8/chinas-great-water-wall/

BACK TO TOP

❖ Water Water Everywhere

After all, it is only a part of that whole that goes into making of one's nation in the first place

"Main ne poochha bata, bastiyaan paaniyon ke kinaaron pe kyon bas gayeen?" Since ages man has lived, loved, roosted and rested on riverbanks. Whether it is Euphrates or Tigris, Nile or Niger, Ganga or Sind, Volga or our own Vyeth – great civilizations have generally flourished along banks of rivers.

It appears that when Xi Jinping, the new Chinese President and Manmohan Singh, about to complete his second term as the Prime Minister of India met on the sidelines of the Fifth BRICS summit at Durban, the substantive part of their discussion was about water. India, it is believed, expressed its concerns about China's three planned new dams on the mighty Yarlung Tsangpo and wanted to institutionalize a bilateral consultative mechanism that would address its apprehensions regarding quality and quantity (flow volume) of the river as it enters India as Brahmaputra. China, on its part, is understood to have expressed its willingness to accept this request although a consultative mechanism of this kind does not change things very much. Rivers while being visible, it is said, are not transparent. To begin with, flows in a river are never constant. Add to that difficulties in monitoring and measuring variable flows and you end up with a particularly prickly problem when rivers that are the life blood of human habitat flow across national boundaries. In that well-known fable about the wolf and the lamb, when the wily wolf accuses the lamb of dirtying 'his' water the lamb gently reminds him that it is he, the wolf, who is upstream and hence in a position of vantage while the lamb, being downstream, is in no position at all to sully the waters. The truth contained in the fable still holds as countries which are upstream, or upper riparians, have great advantage over the downstream lower riparian countries when rivers flow across national boundaries. Who uses how much of the water and in what manner upstream affects one who is depending on the same water downstream. An upper riparian has unfettered right of constructing run-of-the-river power projects but consumptive use of waters is regulated to protect the genuine rights and requirements of the lower riparian.

Ten major rivers flow out of Chinese territory into eleven countries from Afghanistan to Vietnam

while no major one flows into it from any other country. Being the upper riparian to eleven countries and not a lower riparian to any other country places China in a unique position of strength or potential 'hydro hegemony'. Mark Zeitoun and Jeroen Warner of the London water Group in their defining work, "Hydro-hegemony: A framework of analysis of trans-boundary water conflict" 2006, marked out the contours of this hydro hegemony thus: "The increasing structural and physical scarcity of water across the globe calls for a deeper understanding of trans-boundary water conflicts. Conventional analysis tends to downplay the role that power asymmetry plays in creating and maintaining situations of water conflict that fall short of the violent form of war and to treat as unproblematic situations of cooperation occurring in an asymmetrical context..... hydro-hegemony is hegemony at the river basin level, achieved through water resource control strategies such as resource capture, integration and containment. The strategies are executed through an array of tactics (e.g. coercion, pressure, treaties, knowledge construction, etc.) that are enabled by the exploitation of existing power asymmetries within a weak international institutional context. Political processes outside the water sector configure basin-wide hydro-political relations in a form ranging from the benefits derived from cooperation under hegemonic leadership to the inequitable aspects of domination. The outcome of the competition in terms of control over the resource is determined through the form of hydro-hegemony established, typically in favour of the most powerful actor." To a lay person it would appear that in the case of Brahmaputra, for India the shoe is on the other foot. After all, has India not played the hegemon to Pakistan as far as the western rivers of the Indus system are concerned? Why should it be jittery about the prospect of Chinese hydro hegemony? A close examination indicates that this is a facile conclusion. The right to have run-of-the-river projects can't be denied to the upper riparian in any case. India can't deny it to China in the case of all the planned thirty odd dams on the Brahmaputra and likewise Pakistan can't deny India the right to have similar projects on the Kishanganga, Chenab or Jhelum. What is not immediately apparent while seeking the equivalence between India's and China's perceived hegemonic roles is that India and Pakistan have a institutionalized mechanism under the Indus Water Treaty, that governs even related areas like quality of water, drainage and storage –which are of key importance – besides consumptive versus non consumptive use, that has served both countries fairly well over more than fifty years while such a mechanism does not exist between India and China. In fact, Manmohan Singh's proposal should be seen in exactly this light. The fact that China has not signed the Convention of rights for the use of non-navigating water flows (1997) and the Convention of protection and use of

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

trans-border water flows and international lakes (1992) should also not be lost sight of. In the book "Communist China and Tibet: The First Dozen Years" (Martinus Nijhoff, 1964) the authors George Ginsburg and Michael Mathos famously observed: "He who holds Tibet dominates the Himalayan piedmont; he who dominates the Himalayan piedmont, threatens the Indian subcontinent; and he who threatens the Indian subcontinent may well have all of South-East Asia within his reach, and all of Asia!" Water has begun to be used as a force that can be harnessed, controlled and traded in. It has become an instrumentality of geopolitics and got integrated with broader strategic plans of nations. In the pursuit of geopolitically driven nationalistic goals, no nation-state ought to lose the sense of humanity as an indivisible, universal whole. After all, it is only a part of that whole that goes into making of one's nation in the first place. Water, like air, is a resource meant to be shared by all earthlings.

"Water Water Everywhere", 12/04/2013, online at: http://www.greaterkashmir.com/news/2013/Apr/12/water-water-everywhere-9.asp

BACK TO TOP

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

❖ Vietnam: Mekong Transport and Flood Protection Project

Improved transportation, reduced flooding and opening new opportunities for the poor in the Mekong River Delta.

The Mekong Transport Project has upgraded and rehabilitated 362 km of national and provincial roads in the Mekong Delta, thus reducing travel time from the southernmost city of Ca Mau to the southernmost district of Nam Can to one hour from 3 hours before. Ambulances can now run on the Ca Mau – Nam Can section, providing quicker access to health services. The first bus route of Ca Mau province now connects remote areas to the city, providing cheaper transportation.

Challenge

Traffic volumes on National Highway 1 (NH1), Vietnam‘s primary north-south thoroughfare, and other arterial roads were growing at 10-14 percent per year. Traffic growth outpaced road rehabilitation and more substantial investment was needed to reverse that trend, reduce congestion, and segregate road traffic through upgraded national road standards.

Moreover, there was a strong need for extending transport connectivity to rural populations in the Mekong Delta and ensuring permanent access to/from the seasonally-flooded region.

Solution

The World Bank funded project upgraded 180 kilometers of Highway 1 between Can Tho and Ca Mau in the Mekong Delta, and upgraded another 182 kilometers of national and provincial roads in the extended Mekong Delta transport system covering 18 provinces. These provided better road infrastructure, expanded access to the road and highway network in previously unconnected, underserved, and/or disruption-prone areas in both urban and rural settings, thus reducing transport and logistics costs for poor people in the Mekong Delta.

The project also provided technical assistance and capacity building towards updating road sector standards on design, construction, and safety while at the same time strengthening management and staffing capacity of the Ministry of Transport. Bank-financed infrastructure provision also promoted competitive and efficient project management practices that could contribute to the modernization of the domestic road construction industry.

Results

The project stimulated the commercial use of an improved transportation network. As a result:

- The system now transports nearly 11,5 million tons of goods compared to over 7 million tons of good in 2005.

- Travel time from the Mekong regional center (Can Tho City) to Ca Mau (southern most province) was reduced from 3.5 hours to only over 1 hour, facilitating trade and access to market.

- Fatal accident rate was reduced by 2/3, to 8/million vehicle-kilometre from 21/ million vehicle-kilometre without project intervention, while normal injuries were reduced by ¾.

Bank Group Contribution

The World Bank's IDA provided US$ 142.97 million out of the total cost of US$ 218.5 million to upgrade Highway 1 between Can Tho, Ca Mau and Nam Can in the Mekong Delta, and the protection of 39 km of Highway 1 in central Vietnam from flooding.

The project also supported the strengthening of the Ministry of Transport's management, including the planning, monitoring, and organizational functions, as well as the provision of information technology (IT) resources; implementation of new road and bridge design standards; enhancement of road safety audit, blackspot treatment, and heavy traffic management.

Partners

The Japan Bank for International Cooperation (JBIC) supported the rehabilitation of longer bridges through parallel financing, along the sections of the Highway 1 upgraded and rehabilitated by the project.

"Vietnam: Mekong Transport and Flood Protection Project", 2013, online at: http://www.worldbank.org/en/results/2013/04/10/mekong-transport-and-flood-protection-project

BACK TO TOP

❖ Mekong Region Facing Six Degree-Warming, Climate Extremes

AsianScientist (Apr. 9, 2013) – By Alexander Hotz – Temperatures in South-East Asia's Lower Mekong Basin are set to rise by up to three times the global average temperature increase, according to a USAID-funded study.

Previous reports by the Intergovernmental Panel on Climate Change predicted that the basin would see increases in line with the global average of around two degrees Celsius.

But according to a preliminary report by the Mekong Adaptation and Resilience to Climate Change Project (Mekong ARCC) released on March 29, parts of the basin could see annual temperatures increase by as much as six degrees Celsius by 2050.

It also predicts that areas such as Mondulkiri province in Cambodia could experience doubling of the number of days with heavy rainfall, up from just nine days annually.

The authors of the study – a complete version of which will be released in May – warn that if local communities do not adapt, their crop yields will fall significantly, causing severe food insecurity.

"We've found that this region is going to experience climate extremes in temperature and rainfall beyond anything that we had expected," says Jeremy Carew-Reid, the study's lead author, and director of the International Center for Environmental Management, one of the organisations tasked with implementing the five-year project.

The Lower Mekong Basin, which encompasses most of Cambodia and Laos, and parts of Thailand and Vietnam, is primarily rural, with 70 percent of its 60 million inhabitants working as farmers or fishermen.

But as temperatures increase, the region's suitability for certain crops and aquaculture will change. Farmers could find that yields from crops that once thrived, including staples such as cassava, will plummet.

In low elevation zones in Laos, for example, higher temperatures and more rain could make cassava less suitable for cultivation. In the higher elevation provinces of Cambodia, rainier wet seasons and more arid dry seasons could hamper the production of Robusta coffee, an important cash crop in the region.

Despite the gravity of their predictions, the Mekong ARCC team remain optimistic they could help local communities adapt to environmental changes by ensuring the study's information is made available to them.

"Our goal now is to take the science and link it to the changes that are taking place in Lower Mekong," says Paul Hartman, Mekong ARCC's chief of party.

"These communities have dealt with environmental shocks for ages, but we want to give them the best scientific information so they can start planning their future but without the scientists telling them what to grow or not," he adds.

Olivier Joffre, an agriculture specialist at Mekong ARCC, says that creative methods could be used to adapt to climate change. He says Vietnamese coffee farmers could plant shade trees to protect coffee bushes from high temperatures, and recommends that cassava farmers in Cambodia avoid peak summer heats by moving their growing season.

While some areas will have to struggle with the reality of a warming climate, others, especially in the north, could see the transition as a boon to their economies, the authors say.

For example, while the study forecasts that most provinces would see the yield of their rain-fed rice farms decline, in the Sakon Nakhon province of northeast Thailand, more rainfall could double rice production by 2050.

"Mekong Region Facing Six Degree-Warming, Climate Extremes", 09/04/2013, online at: http://www.asianscientist.com/in-the-lab/mekong-region-facing-degree-warming-climate-extremes-2013/

BACK TO TOP

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

❖ A dam too far in Laos

VIENTIANE - It was once referred to by US magazine Newsweek as a "kinder, gentler" type of dam. Since the Nam Theun 2 hydropower dam commenced commercial operations in 2010, the World Bank and other proponents of the multi-billion dollar power project have trumpeted it as an economic and social development success story for host country Laos.

But with the negative publicity and diplomatic tussles now focused on the proposed US$3.5 billion Xayaboury dam, which if built promises to hurt downstream communities and the environment in Cambodia, Laos and Vietnam, Nam Theun 2's emerging failures have largely escaped critical scrutiny.

In particular, there are rising indications that Nam Theun 2 and its massive 450 square kilometer reservoir are responsible for massive amounts of greenhouse gas (GHG) emissions, amounting to as much as one million tons of methane and carbon dioxide per year, according to recent independent academic studies, including a statistical assessment produced by the US's Duke University.

If accurate, that figure is substantially higher than the level of emissions initially estimated in the project's environmental impact assessment. Researchers from Toulouse University in France have concluded that Nam Theun 2 produces in excess of 40% of the GHG that would be emitted from a coal fired power plant of equivalent energy output, and far more than a natural gas-fired plant.

Hydropower proponents have long argued that dams like Nam Theun 2 represent a clean and green source of energy that contribute to economic development. According to the Nam Theun 2 Power Company's website, the 1,070 megawatt power producing dam has made a wide range of positive contributions to local communities, including improvement in rice yields, better health care, and the development of small businesses, among other alleged trickle down benefits.

Recent scientific studies of tropical climate dams such as the Nam Theun 2 show such claims are often more corporate social responsibility propaganda than grass roots reality. The World Bank, Asian Development Bank and other major backers of Nam Theun 2 had earlier faced critical questions about the dam's design, resettlement of local communities and alleged corruption related to logging and biomass clearance of the construction site.

After three years of commercial operations and a vigorous public relations campaign, the dam is now contributing to wider, more intractable problems. These include emerging evidence that resettled villagers have resorted to poaching and illegal logging to sustain their communities as well as reports from the European Union-sponsored Global Climate Change Alliance that Laos has recently become a net emitter of GHG after previously serving as a valuable global carbon sink.

These problems have emerged in clear view while the World Bank-affiliated International Financial Corporation (IFC) cites the "success" of Nam Theun 2 to justify offers of new grants and policy assistance to the Lao Ministry of Natural Resources and Environment (MONRE) to support further hydropower development across the country.

Unquestioning mantras of how dams promote poverty alleviation have recently appeared more regularly in the state-dominated Lao media, coincident with the signing of new dam-related contracts. The IFC's offer of US$2.4 million in financial assistance for dam development also comes amid rising speculation among Vientiane-based independent observers of a significant surge in corruption at the MONRE.

In late March, World Bank vice president for sustainable development Rachel Kyte and regional director John Rome announced while visiting Indonesia that energy renewables and conservation were "vital" to combat rapidly escalating GHG emissions that contribute to climate change. Such statements, however, indicate a disconnect between the World Bank's environmentally conscious public statements and the affiliated IFC's lending activities. They also raise questions about the integrity of the World Bank's existing external monitoring role over Nam Theun 2's implementation.

Contrary to their clean and green image, hydropower dams are a larger source of GHG emissions than generally recognized. Most dams only measure their net emissions, or the GHG emissions measured at the surface of their reservoirs. A more holistic measure pioneered by Phillip Fearnside at the National Institute for Research of the Amazon in Brazil and now used by many scientists and environmentalists takes into account a dam's entire life cycle, including GHG emissions caused by related deforestation, land excavation, and carbon created during the production of dam-related construction materials.

Dams in tropical climates such as Laos' Nam Theun 2 produce especially high levels of methane emissions, which are thought be as much as 20-21 times more potent in preventing infrared radiation from escaping the planet and account for as much as one-third of GHG-driven climate change. Independent scientists and environmentalists estimate that the Nam Theun 2's massive 450 square kilometer reservoir will continue to emit methane into the atmosphere for at least a century, regardless of when the dam stops producing power and is decommissioned.

Katy Ashe, a PhD candidate in physics at Stanford University in the US, wrote in her recent dissertation that "the tropics are especially a bad place for reservoirs to occur because the higher temperatures and flooding of large amounts of biomass leads to high levels of methane production over the lifetime of the dam. It has been estimated that artificial reservoirs that have been created in the tropics could be emitting about 64 megatons of methane each year, which would account for 90% of the methane emissions that occur in the tropics."

Methane, nitrous oxide and carbon dioxide are now literally bubbling up from uncleared, rotting vegetation in Nam Theun 2's reservoir. Because the dam's reservoir is largely anaerobic with negligible levels of dissolved oxygen, the water is toxic to aquatic life and has accelerated to a potentially debilitating degree the amount of iron sedimentation in the dam's outlet channels.

Tropical methane emissions could grow exponentially if Laos makes good on its IFC-promoted dam-building aspirations. Lao officials have indicated hopes to build another 124 dams across the county, leading to a potential 7,500 net megatons of new methane emissions per annum, according to independent scientific assessments. Already dams like the China-backed, Sinohydro-built Nam Lik have had to evacuate nearby villages as methane and hydrogen sulfide emissions posed risks to human health.

As protests and opposition to dams grows in the developed world and in developing countries where civil society groups are allowed a voice, hydropower proponents and their associated financiers are increasingly shifting their dam-building ambitions to underdeveloped totalitarian states like Laos, where protesters against state-led development schemes are habitually arrested and often disappeared. Economic reports from McGill University in Canada have recently questioned the reality of benefit sharing from state development projects in nations such as Laos where the people have no rights.

"It seems that opposition to damming in one place is more fluidly than ever leading to a fairly simple displacement of damming activities to more receptive areas nearby," said Jackson Ewing, an academic at Singapore's Nanyang Technological University, in email correspondence with Asia Times Online. He cited the shift in dam-building activities from places like Thailand, where civil society has in recent years strongly opposed such projects, to Laos, where the government brooks no dissent.

Underdeveloped nations like Laos have only recently become net emitters of GHG, due mainly to unchecked rampant deforestation including massive land areas cleared for dam-building. Those emission figures, however, will grow enormously if Laos builds another 124 new dams, as government officials have outlined in recent hydropower development plans. To compound the problem, the lands cleared for dam reservoirs will destroy more old growth forests capable of sequestering carbon dioxide.

Clogged potential

Hydropower dams on the scale of Nam Theun 2 generally have a productive life span of between 20 to 30 years. However, Nam Theun 2's productive period may be much shorter than originally envisioned as preliminary surveys apparently failed to account for the area's specific geology.

Typically environmental impact assessments do not weigh the potential for seismic activity or other

geological factors. The fact that rocks around the Nam Theun 2's reservoir contain high levels of iron was apparently overlooked by the dam's designers and engineers. According to an informed source who spoke on condition of anonymity, Iron leachates are now increasingly clogging Nam Theun 2's outlet channels.

"Currently they are losing around five days of generating capacity per year due to narrowing of the channels," the source claimed. "They have tried acid in the heat exchangers but the effect is negligible. If the dam was not almost completely anaerobic then it would be less of a problem as [the iron] would oxidize and be carried away. But the iron-containing sludge settles on the bottom near the outlets. I can't imagine the dam has much life left in it."

Nam Theun 2 Power Company's official website offers a more upbeat assessment of the dam's lifespan, saying that the Lao government and private shareholders will operate the project for the "first 25 years of its operation". It's unclear if the nine international commercial banks, including ANZ, BNP Paribas, ING and Standard Chartered, and seven Thai commercial banks, among them Bangkok Bank, Kasikornbank and Siam Commercial Bank, providing Nam Theun 2 with long-term loans are aware of the dam's apparent mounting technical difficulties related to iron-clogged outlets.

At this early stage of its hydropower development, Laos has made no financial provision for decommissioning dams, a process that in some cases can be more expensive than actual construction. Moreover, even after dams have stopped producing power their associated reservoirs often continue to emit methane and other GHG for many decades, as biomass continues to degrade and is washed down into the reservoir from surrounding areas. The World Bank has admitted to significant landslides and slumping around Nam Theun 2's reservoir.

Diminished returns from the dam's operations will likely mean even less trickle down of benefits to the local population. Jared Bissinger, a PhD candidate at Australia's Macquarie University, has observed broadly that economic development based on natural resource extraction and energy, the model now being promoted in Laos, seldom if ever contributes to broad-based economic well-being. "It's not that the resource industries and the extractive industries are in and of themselves bad. It's just that they require good governance, and that's the missing link." he recently wrote.

Others see potentially corrupt motivations for dam-building in Laos. "I think the only reason that Laos builds so many dams is so they can cut the trees legally," an environmental scientist based in Bangkok who referred to herself only as "Miss Nah" told Asia Times Online. "All the high-value trees were taken from the [Nam Theun 2 site] but saplings and low-value trees were left behind as the profit from potential sales did not warrant the effort of removal."

If Laos follows through on its proposed 124-dam building spree, Phonesack Vilaysack, one of the country's most renowned loggers, will be well-placed to clear the areas for construction. His Laos-

based construction and timber company, the Phonesack Group, profited from the trees cut for Nam Theun 2's construction, according to the Environmental Investigation Agency, which has reported in-depth on his company's alleged deforestation activities.

There is emerging evidence that villagers resettled from the Nam Theun 2 reservoir site onto poor quality lands elsewhere have assisted the well-connected Phonesack Group to log forests on the Nakai Plateau where they were relocated. According to a foreign academic familiar with the situation who accompanied the World Commission on Dams Panel of Experts to Laos last year, villagers in the area were illegally cutting trees to sustain themselves.

"We asked a lot of questions, and found the people were illegally logging the rosewood and other high-value trees to make a living. They said they sold the trees to Phonesack [Group]. Other people said they were poaching endangered species of animals and birds for sale to China and Vietnam," said the academic, who requested anonymity. The Phonesack Group did not respond to messages seeking comment for this article.

In March, the Phonesack Group signed a memorandum of understanding with the Lao government to undertake an 18-month feasibility study for another large hydroelectric dam project, Nam Theun 1, in the lower part of the same watershed as Nam Theun 2. The proposed dam has already courted controversy as it would require the deforestation and inundation of thousands of hectares of the Nam Kading National Protected Area, a globally significant biodiversity hotspot. It would also force the resettlement of some 10,000 people from valley communities.

Phonesack Vilaysack is related to one of Laos' leading political families, the Pholsenas, and is viewed as "untouchable" by Lao people familiar with his company's activities. That's in part because the Pholsenas are so strongly represented in the Lao government.

Khempheng Pholsena, one of Phonesack's relatives, was formerly a vice president of the Asian Development Bank and Lao vice foreign minister before he was given responsibility to oversee the country's national hydropower development plans. His wife, Madame Khempeng, is now minister to the Lao prime minister's office. Sommad Pholsena is currently minister of public works and transport while Phonethep Pholsena is president of cultural and social affairs committee of the National Assembly.

Nam Theun 1 was scratched from Laos' national power development strategy in 2004 because it was considered economically unviable from a cost perspective. Now resurrected, the dam would be situated in the verdant Nam Kading protected area, opening one of the country's last genuinely wild areas to poachers and government-linked loggers.

Despite its large land mass, Laos has very little arable land due to mountainous terrain and an

increasingly fragile environment. Estimates of land suitable for farming are often put at around 6%-10% of the country's total area. Many of those areas are situated in river flats which are often inundated by reservoirs, or other downstream areas that suffer from regular bank erosion due to the on-off surges of water caused by existing upstream dams.

The same land squeeze applies to local communities that are resettled to make way for dams. "It's getting hard, almost impossible, to find suitable replacement land for resettled communities," said Lao hydro-engineer Doavanh Khamsouth while working on an unrelated dam project in northern Laos.

"We ended up sending the people on our project back up the mountain. Frankly speaking they had been sent down to the valley so the forest could be logged, then they had to move again as their valley was going to be flooded. I really don't think we can offer a good livelihood for them. We have offered them cows as they can't grow rice, but there are no vets or enough grass for the cows. The people who suffer do not have dishwashers or air conditioners. It's only the wealthy who benefit from hydropower."

"A dam too far in Laos", 12/04/2013, online at: **http://www.atimes.com/atimes/Southeast_Asia/SEA-01-120413.html**

BACK TO TOP

❖ Bangladesh opposes proposed dams in Meghalaya: Indian Minister

Bangladesh has opposed the construction of two hydro-based power projects along the Indo-Bangladesh border in Meghalaya until the two countries sign a water sharing agreement, Power Minister Clement Marak informed the state Assembly today.

A Bangladesh Joint Rivers Commission (JRC) member in his letter to the Union Ministry of Water Resources had said the two dams might cause adverse impacts in various sectors in Bangladesh due to change of water flow, Marak said replying to a call attention motion moved by opposition United Democratic Party leader Paul Lyngdoh.

Meghalaya is in the process of constructing dams on two rivers -- the Mawphu dam across river Umiew and Myntdu dam across river Myntdu in East Khasi Hills and West Jaintia Hills districts, respectively, report Indian media.

The JRC member had also requested not to proceed with the construction of two dams until impact assessment on various sectors had been jointly conducted and water sharing agreements of the two common rivers had been signed by the two countries, the minister said.

While there was no further communication from the Ministry since January 7 last with regards to offering a stake to Bangladesh in the two projects, the minister assured of no river diversion as such.

Marak said state-owned Meghalaya Electricity Corporation Ltd which was generating power from the Myntdu hydel power projects had informed the Ministry of Water Resources that the project would not have any water impoundment.

He said the the North Eastern Electric Power Corporation Ltd has indicated the same in their pre-feasibility report of Mawphu hydel project.

"The project shall utilise mostly the available discharge in the river, drawn through a 4.07 km-long tunnel to the power house generating 362.53 million units, meeting the same river downstream through a 45 meter-long channel," he said.

Paul in his call attention motion said the opposition of Bangladesh in the power projects ran the risk of depriving power starved Meghalaya of its potential in the hydro-power sector, besides losing a lot of time in resolving the issue. He urged the state government to respond to the issue at the earliest so that Meghalaya could benefit from the two projects.

"Bangladesh opposes proposed dams in Meghalaya: Indian Minister", 11/04/2013, online at: http://www.globalpost.com/dispatch/news/asianet/130411/bangladesh-opposes-proposed-dams-meghalaya-indian-minister

BACK TO TOP

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

❖ Water authority defunct in Gujarat

GANDHINAGAR: The Narendra Modi government had formed the Gujarat Water Regulatory Authority (GWRA) on February 14, 2012 â€" Valentine's Day â€" hoping to streamline water usage in the state. But more than a year later, GWRA is a headless, defunct body and almost half of Gujarat is staring at a drought with Saurashtra and north Gujarat the worst hit.
Ideally, GWRA was to work according to the state water policy, which is being formulated, and other existing laws. It was to play a key role in regulating the limited resources and ensure fair use of both surface water and groundwater.

But a senior government officer, who helped form the GWRA constitution, told TOI, "The authority is mired in bureaucratic tangles. They can't even decide who should head it. In fact, not a single appointment has been made so far." The chairperson and the other members of the authority are to be appointed by the governor on the recommendation of a selection committee headed by the chief secretary and senior bureaucrats.

Although the state government is yet to start taxing water supply on a large scale, one of the main functions of GWRA was regulating water tariff system and charges for surface and sub-surface water used for domestic, agriculture, industrial and other purposes. It was also supposed to determine and regulate the distribution of water to various categories of users. It was also expected to periodically review and monitor the water sector costs and revenues.

If severe scarcity is one issue that the state government is facing today, it has also rattled farmers by enacting the new Irrigation and Drainage Act, 2013, which does not allow farmers to even dig a well in their own fields and access water from nearby canals without permission of the state government. The new act imposes harsh penalties on those who flout the law.

Senior officials say the government can expect more unrest over water in the state if a clear strategy is not put in place quickly to manage this precious resource.

"Water authority defunct in Gujarat", 12/04/2013, online at: http://articles.timesofindia.indiatimes.com/2013-04-12/ahmedabad/38491080_1_water-sector-water-usage-water-tariff-system

BACK TO TOP

❖ Irrigation water diverted for industries and domestic use in Maharashtra

Water starved areas across Maharashtra were deprived of irrigation thanks to decisions of the government's high powered committee (HPC) which diverted 1983.4 million cubic metres (mcm) from 41 dams to industry and domestic use between 2003 to 2011 affecting 3.23 lakh hectares.

According to a report by Pune based NGO Prayas which will be published shortly, the committee headed by then irrigation minister Ajit Pawar for the most part, ignored protests and high court orders to steamroll decisions. Other agencies too approved reservations for non-irrigation use of 1385.29 mcm affecting 94,116.9 hectares. Totally this meant that 4.18 lakh hectares were bereft of irrigation. The Water Policy of Maharashtra for 2003 gave industry precedence over agriculture and the HPC constituted in 2003, only decided on proposals for diverting more than 25 per cent of the storage capacity of the dam to non-irrigation uses. Of the 56 proposals for diversion to non-irrigation use, the HPC approved water diversions from 41 dams.

Analysing information obtained through the Right to Information (RTI) act, the Prayas report says that in 23 projects, 30 to 90 per cent of water is diverted for non-irrigation use, in three dams it is between 75 to 90 per cent, for instance Hetavane dam in Raigad has 88 per cent of its water diverted to the special economic zone (SEZ) and other uses, and in Pavna and Aamba dams 81 per cent was reserved for non-irrigation use.

Dams in Thane district like Surya meant for irrigation for tribals has 53 per cent diverted for industries or drinking water and in the Darna Gangapur complex of dams in Nashik, 74 per cent is diverted for non-irrigation purposes. The highest reservations for non-irrigation use was in the Darna-Gangapur complex of dams in Nashik with 32.9 per cent, Khadakvasla dam in Pune 17.5 per cent, Upper Wardha project in Amravati with 6.5 per cent and even Gosikhurd with five per cent.

North Maharashtra has the highest allocation for non-irrigation use with 35 per cent, followed by Western Maharashtra and Vidarbha with 26 per cent each, Konkan 13 per cent and Marathwada two per cent. In Northern and western Maharashtra municipal corporations and councils benefit most, apart from industry and Maharashtra Industrial Development Corporation (MIDC) areas. In western Maharashtra, water has been diverted for special economic zones (SEZ) s and thermal power projects and in Vidarbha too it is mainly for power plants and drinking water in cities.

The HPC in its 21 meetings which were analysed gave speedy approval without following any norms, the report said. The bulk of the allocations, 46 per cent were reserved for industries and 54 per cent for drinking water and domestic use, belying the popular notion that industries got very little water from dams. The largest chunk of water for domestic use —16.94 per cent went for drinking water to big and small cities and gram panchayats. Mumbai, Pune, Navi Mumbai, Nashik and Nagpur were the beneficiaries while only 1.75 per cent went to gram panchyats. Of the industrial allocations, thermal power plants received the largest amount of water — a whopping 64 per cent, MIDC 19 per cent and SEZ 14 per cent.

Forty-seven companies benefited from water allocations and of this 12 companies or one-fourth of them got 90 per cent. Of the 15 thermal power plants which benefitted, 13 were private power companies including Sofia Power Company (India Bulls) Amravati, India Bulls Mega Power plant, Adani, Lanco, apart from two National Thermal Power Company plants in Nagpur and Solapur. Of the industries, three private companies-- Reliance got eight per cent, India Bulls -17 per cent and Adani 7. 7 per cent of the water allocations. Prayas notes that HPC gave the highest benefits to private companies and clearly the dam waters instead of going to farmers went to industries or cities.

Nothing in the meetings of the HPC reflects any concern for the areas deprived of irrigation or how some alternatives can be worked out. Only in Nashik was there a condition that water used for domestic purposes can be treated and sent back to the farmers but that was nullified as the water was given to India Bulls.

The water diversions were made for 21 to 31 years in most of the cases and the HPC did not heed any provision of the Maharashtra Water Resources Regulatory Authority(MWRRA) act or have any procedures laid down to observe governance. Its decisions were not in keeping with laws of the land and neither did they have a legal framework. It also ignored the fact that there were three court cases against the diversion of water and instead of paying heed to all this, the government chose to endorse the HPC's decisions by an ordinance in 2010 which was widely assailed. In 2005 government had passed the MWRRA act which the HPC seems to have ignored, and in 2009 people challenged the HPC decisions. The government retaliated with an ordinance in 2010 to amend MWRRA to endorse the HPC decisions. The ordinance had provisions whereby the HPC orders could not be challenged in

any court. The ordinance was replaced by a bill with the same draconian provisions which was passed hastily in the legislative assembly during the night on April 14, 2011 creating a furore.

The Prayas report also throws light on the poor attendance of the HPC meetings and the abysmal quality of decision making. Other than the water resource minister, the committee comprises the ministers for finance, water supply and sanitation, industry, agriculture and the water resources minister of state. Data analysed from 20 meetings shows that the agriculture minister was present only in 7 meetings and the industry minister had the lowest attendance, being present only in five. Other ministers were not there in 50 per cent of the meetings and only the water resources minister was present in four meetings. It would not be wrong to say that decisions were driven at the behest of a certain set of ministers, the report concluded.

From a farmer centric state, Maharashtra seems to have moved to encouraging an industry politician nexus, a Prayas member noted.

"Irrigation water diverted for industries and domestic use in Maharashtra", 12/04/2013, online at: http://www.thehindu.com/news/national/other-states/irrigation-water-diverted-for-industries-and-domestic-use-in-maharashtra/article4609969.ece

BACK TO TOP

❖ New app powers better sanitation in developing world

A new mobile phone app developed by a University of Nottingham researcher is changing the lives of millions of people in Africa by giving them the power to instantly report problems with poor sanitation.

More than a third of the world's population lacks access to adequate sanitation facilities which perpetuates disease and high rates of child mortality. Now a new competition, the Sanitation Hackathon sponsored by the World Bank, is challenging researchers in communication technology to design innovative software, which can address real-world problems in health and sanitation. Mark Iliffe is a doctoral researcher at the University's Horizon Digital Economy Research Institute. His new web and mobile app, Taarifa, has been chosen as one of 10 finalists in the competition and is already changing lives in countries like Uganda and Tanzania. The community developing Taarifa is wide ranging, bringing together academics, humanitarian developers and community members to develop the Taarifa platform. Improving the flow Taarifa is an open source web application for information collection, visualisation and interactive mapping. It allows people to input and share their own sanitation problems using SMS, web forms, email or social media. The reports can be monitored by local authorities and acted upon to carry out repairs, improvements or new infrastructure, giving citizens the power to affect changes in their own communities. Mark said: "Taarifa creates positive feedback loops, engaging communities with NGOs and governments, but is developed by a core of humanitarian volunteers and developers. This gives a capacity and potential for rapid development and innovation to solve sanitation and other issues." Mobile power to drive change Jae So, manager of the Water and Sanitation Program at the World Bank said: "Over 2.5 billion people worldwide lack access to proper sanitation, yet over one billion of these people have access to a mobile phone. The key is to use rising access to mobile phones and other communications technologies to generate solutions to entrenched challenges such as limited access to toilets, weak supply chains for sanitary products, or limited feedback mechanisms that citizens can use to voice needs and complaints."

"New app powers better sanitation in developing world",10/04/2013, online at: http://phys.org/news/2013-04-app-powers-sanitation-world.html

BACK TO TOP

❖ Hunger stalks villagers in drought-hit west India

NEW DELHI (AlertNet) - Millions of people in India's western state of Maharashtra are at serious risk of hunger after two years of low rainfall, coupled with poor management of water resources, have left dams empty, farmland parched and cattle emaciated, aid agencies warned on Thursday.

Maharashtra -- one of the country's biggest producers of sugar, pulses, cotton and soybeans -- is reeling from the worst drought in more than four decades after receiving less than 50 percent of the average rainfall during the last two monsoon seasons.

As a result, millions of people from mainly farming communities across 15 districts are facing severe shortages of drinking water, and are unable to grow crops and provide fodder for their livestock, aid workers say.

"Drinking water is a serious problem as the normal supply systems such as wells and piped water from the dams (reservoirs) have completely collapsed. People are resorting to tankered drinking water, but it is not enough," said K.V. Thomas, chief zonal officer for Church's Auxiliary for Social Action (CASA), a Church-backed relief organisation.

"I think hunger is likely to become a critical issue in the coming weeks as farmers have no income and their backup resources are now depleting. People will have no way to feed their families soon. Over the last 40 years we have seen many droughts, but nothing like this."

Almost one-fifth of Maharashtra, India's third largest state, has been declared drought-hit, and some 12,000 villages across districts such as Solapur, Ahmednagar, Satara, Beed, Nashik, Latur and Nanded need help.

CATTLE CAMPS, TANKER TRUCKS

Last month the government approved spending of 12 billion rupees ($222 million) on relief. It has brought in around 2,500 tanker trucks to supply drinking water and set up "cattle camps" where farmers can bring their livestock for fodder.

But aid workers say the state response has been inadequate, erratic and ineffective, with many villages unable to reach the services being provided.

"It's a very sad situation on the ground. People have no work and are just sitting idle or walking around with water-collecting utensils in these villages which are bone-dry," says Rekha Shetty, director of disaster management for Catholic Relief Services.

Charities say the problem is partly climatic, but also due partly to poor management of water resources, so that dams once used to irrigate farmland are increasingly being diverted to service the state's rapid industrialisation.

As a result, more water from the dams is going to sugar factories and newly built luxury residential areas complete with golf courses, while farmers are losing out on water for crop irrigation and relying more on erratic monsoons, they say.

Aid groups say increasing numbers of people are also now migrating to urban centres in Maharashtra in search of work.

"This is one of the worst droughts and has triggered distress-migration to urban centres," said an alert issued by the Act Alliance, a coalition of 130 civil society organisations.

"Squeezed out of their villages by water scarcity, hundreds of young men from Maharashtra's parched interior are now standing on the city's doorstep in search of employment."

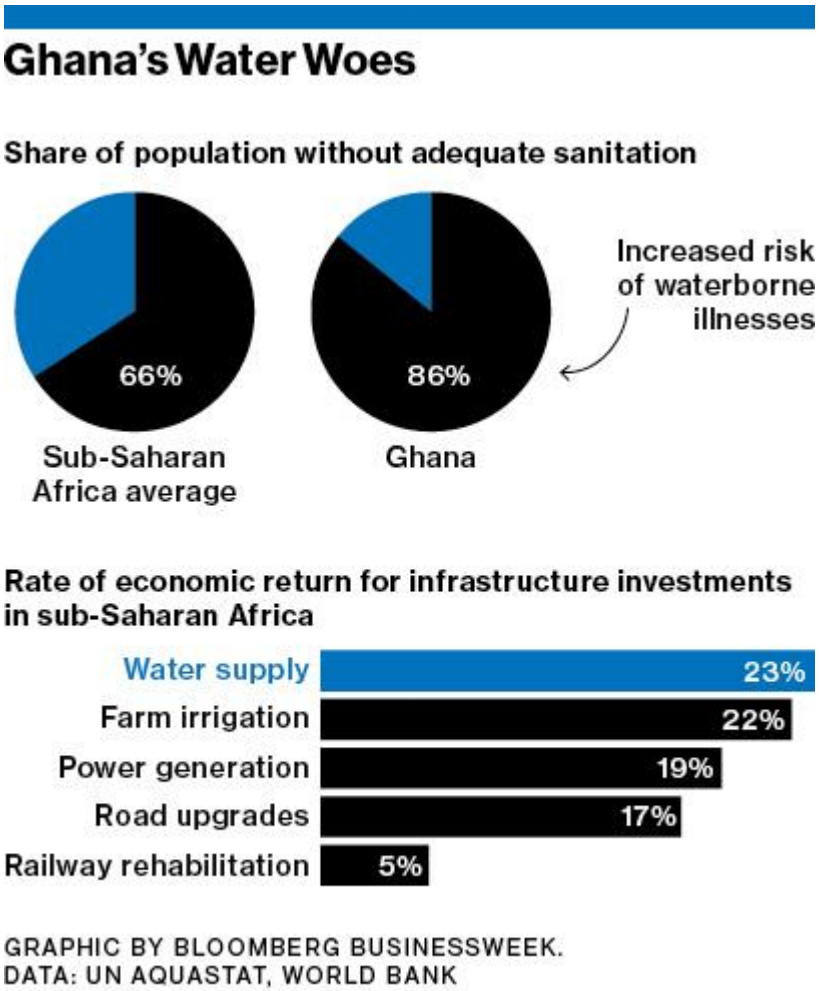
“Hunger stalks villagers in drought-hit west India”, 11/04/2013, online at: http://www.trust.org/alertnet/news/hunger-stalks-villagers-in-drought-hit-west-india/?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=20a131c28b-RSS_EMAIL_CAMPAIGN&utm_medium=email

BACK TO TOP

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

❖ A Water Crisis Threatens Ghana's Economic Growth

Charity Atter's maid, Eva Tetteh, lowers a bucket deep into a well and waits about two minutes for the water to collect inside. Atter, a 37-year-old widow who lives in one of the fast-growing suburbs of Accra, Ghana's capital, has been relying on well water for three years. "The water situation we're facing here is a very difficult problem," she says as she tends customers at her vegetable store in front of her house.Water—or the lack of it—is one of the biggest issues facing urban Africa, which will see a 66 percent population increase to 1.2 billion people by 2050, according to the United Nations. Although water shortages have long plagued parts of the continent, they've become the potential killer of Africa's economic takeoff. Ghana's $35 billion economy, whose estimated growth of 8 percent in 2013 would outpace the sub-Saharan African average for a sixth straight year, cannot continue at that rate without a modern water network.



Ghana has had peaceful, democratic elections since 1992 and derives its economic strength from gold, cocoa, and oil. Yet in a speech on March 6, Ghanaian President John Dramani Mahama acknowledged that Ghana is "burdened with a major energy and water crisis." The country's network of aging water pipes, some of which date back to 1914, does not reach Accra's expanding and crowded outer suburbs. "Supply cannot meet the increasing demand," says Kweku Botwe, acting managing director of state-owned Ghana Water. "Investment had stagnated so much over the past 40 to 50 years that you're no more dealing with the urgent situation, but with the emergency." Ghana Water can't account for 55 percent of the water it produces, adds Botwe, because Ghanaians illegally siphon water from its pipes, and decrepit pipes damaged by erosion and construction often burst.

The shortage is compounded by a nationwide crisis in electricity production that started when the West African Gas Pipeline broke down last August. That sharply reduced the natural gas available to fire thermal power plants. The water company needs electricity to operate its treatment facilities.

To get water for their operations, companies often pay private water haulers up to 11 times what Ghana Water charges, according to Robert Darko Osei, a research fellow at the University of Ghana's Institute of Statistical, Social and Economic Research. Ayrton Drug Manufacturing bought 12,000 gallons from tanker trucks for 900 cedis ($486) in February, says Chief Accountant Joseph Yaro Abaah. "When water doesn't run for some time, we fall on tanker supplies to feed our factory," he says. Osei says the water crisis is already hurting gross domestic product: With no solution in sight, it's hard to estimate what the ultimate impact will be.

Almost a quarter of greater Accra's population of 4 million doesn't get water from the tap, according to Patrick Apoya, a consultant with the Accra-based Coalition of NGOs in Water and Sanitation. Nationally, that figure is 37 percent. While most Accra neighborhoods hooked up to the utility are supposed to get water pumped into their homes about three times a week, poor infrastructure and unreliable electricity sometimes keep that from happening.

Charity Atter pays a private supplier 35 cedis every three days to fill a water storage tank at her home. It's a backup to the well, which runs low in the dry season. Atter says she pays a shopkeeper 2 cedis a day for purified drinking water. Water delivered to neighborhoods by private operators of tanker-trucks may be contaminated and lead to diseases such as cholera, which killed 31 people in the city last year, says Apoya.

Mohammed Dauda, a driver for a pharmacy in Accra, migrated to the region in 2005 to seek work. The father of six lives in a three-bedroom house without pipe-borne water, he says. He and his family use well water for bathing, washing, and cooking, spending 2 cedis a day on water for drinking, which comes in sealed plastic bags that hold 500 milliliters (0.13 gallons) each. Because they lack water to flush their toilet, Dauda's family uses a public stall, paying 0.80 cedis per use.

"Without a regular flow of water it is difficult to use the water closet; we'd have to buy Poly Tank water at these times that the well is not flowing," says Dauda, 48, using the common brand name for water that comes in plastic containers. "We are not happy with using well water for cooking because you can't guarantee it's kept from pollutants. I wish we had money like the rich to depend solely on Poly Tank water."

The lack of water in Accra affects women and children most, says Ibrahim Musah, the head of policy and partnership at nonprofit WaterAid Ghana. At Nima, Chorkor, and Mamobi, all Accra suburbs where most households are not connected to the utility, the women and children wake up early in the morning because it takes up to an hour to fetch water from a public pipe stand or well. "The children are late for school, and it affects their performance," says Musah. Women, who often prepare food for a living, may struggle to be ready for their customers: "That means her livelihood is affected; if she has children, then there is difficulty looking after them."

Ghana Water is working with foreign investors, including Denys, a Belgian company that's building a €341 million ($438 million) treatment plant, and Befesa Agua, a Spanish-Ghanaian company spending $115 million on a desalination plant. The long-term success of Ghana's economy may depend on these efforts.

The bottom line: *Almost 40 percent of Ghana's population lacks access to tap water, forcing the poor to pay high prices to private suppliers.*

"A Water Crisis Threatens Ghana's Economic Growth", 11/04/2013, online at: http://www.businessweek.com/articles/2013-04-11/a-water-crisis-threatens-ghanas-economic-growth?utm_source=Circle+of+Blue+WaterNews+%26+Alerts&utm_campaign=20a131c28b-RSS_EMAIL_CAMPAIGN&utm_medium=email

BACK TO TOP

❖ Meghalaya allays Dhaka fears - State mulls dams over Umiew, Myntdu rivers to combat power crisis

Shillong, April 10: Meghalaya today sought to allay fears expressed by neighbouring Bangladesh over the proposed construction of two hydel power projects on rivers located near the international border.

With the power crisis deepening, the state has proposed to construct two dams - the Mawphu hydroelectric project stage-I and stage-II in East Khasi Hills over the Umiew river and the Myntdu-Leshka hydroelectric project stage-II in Jaintia hills region over the Myntdu river.

In January this year, Bangladesh had strongly opposed the proposed construction of the projects as it feared that the construction of the dams could have an adverse impact in areas falling within its territory.

The state government had received a missive from the Union water resources ministry enclosing a letter from a member of the Joint Rivers Commission, Bangladesh, on the Mawphu and Myntdu dams.

It stated that both the dams are on the common rivers between Bangladesh and India and hence construction of the dams may have an adverse impact on various sectors in Bangladesh because of change of flow regime of the Umiew and Myntdu rivers.

Replying to a call attention motion moved by West Shillong legislator Paul Lyngdoh, state power minister Clement Marak said the member of the commission had also requested not to proceed with the construction of the two dams until impact assessment on various sectors in Bangladesh had been jointly conducted. Water-sharing agreements of the two common rivers have been signed between the two countries.

Further, Marak said the Union water resources ministry had also requested the state government to send complete information, including the environmental impact assessment studies and environment management plan (EIA-EMP), if any, along with the status of these projects, and views of the state government on the subject.

The Meghalaya Energy Corporation Ltd informed the ministry that it had taken up the survey and investigation works of Myntdu dam, stage II, which is located near the Bangladesh border.

"The project is planned as a run-of-river scheme and as such there will be no impoundment of water. The flow regime of those rivers will, therefore, not be affected. At present, environmental impact

assessment studies had not been taken up yet for the project," Marak said while further quoting from what the corporation had written to the ministry.

On the other hand, the North Eastern Electric Power Corporation Ltd (Neepco), in a separate letter, informed the ministry that as per the pre-feasibility report it had prepared, the Mawphu project is a run-of-river type development. It has marginal live pondage of 1.12 million cubic metres only and as such the project shall utilise mostly the available discharge in the river.

White paper demand

UDP legislator Paul Lyngdoh today told the Meghalaya government that the Myntdu-Leshka hydel project was a "fit case" for a CBI inquiry while demanding a "white paper" on the project.

During question hour, Lyngdoh pointed out that the total cost of the project had escalated to Rs 965 crore against the original estimated cost of Rs 360.08 crore.

The foundation stone for the project was laid by former President A.P.J. Abdul Kalam in 2002 while the actual construction of the dam commenced in May 2004.

The three-fold jump in the project expenditure was mainly because of the cost and time overrun. Lyngdoh stated that as per the Comptroller and Auditor- General's report, the project has seen a 102 per cent escalation in construction cost, thereby, rendering it unviable.

"This project is a fit case for a CBI inquiry in view of the irregularities pointed out in the CAG report," the legislator said. He wanted to know whether the irregularities had any adverse impact on the project cost.

Power minister Clement Marak, however, said the project was still viable in spite of cost escalation. Marak further said that the amount of power generated from the project till date was 220.82 million units while during the lean period the power generation was 10MW.

At the same time, Lyngdoh asked the power minister to come up with a white paper on the entire project.

The first of the three units of the project was formally inaugurated in February 2012 by chief minister Mukul M. Sangma.

"Meghalaya allays Dhaka fears - State mulls dams over Umiew, Myntdu rivers to combat power crisis", 11/04/2013, online at: http://www.hydroworld.com/news/2013/04/11/meghalaya-allays-dhaka-fears-state-mulls-dams-over-umiew-myntdu-rivers-to-combat-power-crisis.html

BACK TO TOP

❖ Bangladesh vents ire over 2 Indian dams in Meghalaya

Bangladesh has opposed the construction of two hydro-based power projects along the Indo-Bangladesh border in Meghalaya until the two countries sign a water sharing agreement, Power Minister Clement Marak informed the state Assembly today.

A Bangladesh Joint Rivers Commission (JRC) member in his letter to the Union Ministry of Water Resources had said the two dams might cause adverse impacts in various sectors in Bangladesh due to change of water flow, Marak said replying to a call attention motion moved by opposition United Democratic Party leader Paul Lyngdoh.

Meghalaya is in the process of constructing dams on two rivers – the Mawphu dam across river Umiew and Myntdu dam across river Myntdu in East Khasi Hills and West Jaintia Hills districts, respectively.

The JRC member had also requested not to proceed with the construction of two dams until impact assessment on various sectors had been jointly conducted and water sharing agreements of the two common rivers had been signed by the two countries, the minister said.

While there was no further communication from the Ministry since January 7 last with regard to offering a stake to Bangladesh in the two projects, the minister assured of no river diversion as such.

Marak said state-owned Meghalaya Electricity Corporation Ltd which was generating power from the Myntdu hydel power projects had informed the Ministry of Water Resources that the project would not have any water impoundment.

He said the the North Eastern Electric Power Corporation Ltd has indicated the same in their pre-feasibility report of Mawphu hydel project.

"The project shall utilise mostly the available discharge in the river, drawn through a 4.07 km-long tunnel to the power house generating 362.53 million units, meeting the same river downstream through a 45 meter-long channel," he said.

Paul in his call attention motion said the opposition of Bangladesh in the power projects ran the risk of depriving power starved Meghalaya of its potential in the hydro-power sector, besides losing a lot of time in resolving the issue.

"Bangladesh vents ire over 2 Indian dams in Meghalaya", 10704/2013, online at: http://www.indianexpress.com/news/bangladesh-opposes-proposed-dam-construction-in-meghalaya/1100356/

BACK TO TOP

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

❖ Water Desalination Program in Yemen

According to Saudi newspaper, al-Ektesadiya the Gulf states are now considering building and financing one of the region largest desalination projects in impoverished Yemen, as to answer to the country's dire need of fresh water.

Over the years, as Yemen has been using and abusing its limited aqua-resources water and sanitation have become chronic problems in this poorest nation of the Arabian Peninsula, where, on average, each Yemeni has access to only 140 cubic meters of water per annum against the Middle East average of about 1,000m³ per capita per annum.

And while former President Ali Abdullah Saleh started under the advise of experts to look into Yemen's water problems, trying to devise a manageable and sustainable solution, 2011 uprising put all projects and studies on hold.

In 2010, Yemen's general rural water authority (GRWA) commissioned an assessment of existing water projects and coverage.

Jerry Farrell, country Director of Save the Children in Yemen told IRIN in 2012 that while solutions exist political will is lacking. "Without a greater governmental commitment to water issues, international aid organizations dealing with water will not be able to work effectively in the country. The government must also provide water subsidies for the extremely poor while water infrastructure is developed."

As Yemen's regional partners are grasping the importance of an economically and socially stable Yemen, it looks as if water is once again a top priority.

At a seminar hosted by the Middle East Center for Strategic Studies held in Jeddah, (Saudi Arabia)in March a team of Yemeni experts met with Gulf dignitaries to discuss Yemen desalination project.

The project which is set to amount to $200 million will provide employment opportunities for a prospective four million Yemenis over a ten years span.

"Water Desalination Program in Yemen", 09/04/2013, online at:
http://yemenpost.net/Detail123456789.aspx?ID=3&SubID=6767&MainCat=7

BACK TO TOP

❖ The Water Security Concept is on the Process of Redefinition

Along with World Water Day, which is celebrated on 22nd March, conferences regarding the vital importance of water are held in many parts of the world and also studies on this subject have been published. One of these studies is the Water Security and the Global Water Agenda, published by the UN-Water mechanism which is the cooperation of the United Nations related to water. This study have completed by the agencies, specialized institutions and programs which are United Nations organs as well as institutions that are not. (1)

The main aim of the report is to evaluate the water security concept from all perspectives and to include all issues related to water in the concept of water security. The water security concept is defined in the report as follows: to provide sufficient and acceptable quality water to the society for its welfare and socio-economic development; to ensure protection against pollution and infectious diseases resulting from water and to protect ecosystems within the framework of peace and political stability. The report indicates the existence of many factors affecting water security and it is stated that all financial, political, geographical, institutional and structural factors are a part of water security. Although these factors are not directly associated with water, water security is at the intersection of a number of security concepts. For this reason, it is emphasised that water security studies can reach a complete conclusion with an interdisciplinary work. In this context, it is stated that UN-Water is carrying out studies for this issue to be on the agenda of the United Nations Security Council.

The report has referred the fact that the United Nations General Assembly has accepted water and sanitation services as a human right by a resolution no A/RES/64/292 on June 28, 2010. Further, the report has pointed out that this resolution has contributed to the development of the concept of water security and indicated many shortcomings such as efficiency, participation and accountability.

Another important point highlighted in the report is the necessity to establish an appropriate political environment to ensure the security of innovativefinancial mechanisms in water management. The report states that the works related to water resources are generally financed by the government so far but the private sector or financial support to local communities may encourage “creative” financial resources and contribute to the security of water. In fact, in recent years, all kinds of international studies related to water has increasingly stated that the development of water resources and water services can be carried out by the private sector. The exclusion of the state and, therefore, the public power from the process of meeting an important human need, water, has intensively been stated at the idea level. The aim by realisation this idea is to direct capital surplus to investment and to make water, which is one of the most basic human needs, a commodity providing profit. Many organizations which are the components of the UN-Water have such works and these works seem to be reflected in the report. Some of these components such as the World Bank, IWRA (International Water Resources Association), Aquafed (The International Federation of Private Water Operators) strongly support

the private sector led water management and this paves the way for the process. The concept of water security should consider the needs of all individuals by definition but the demand for the private sector participation makes this concept meaningless. The concept of governance, which is complementary to the approach of managing water services through the private sector, is also stated in the report.
The report has also addressed transboundary waters and "shared water" is suggested to have a potential to increase cooperation between the countries. Moreover, it is stated that water security should be ensured for all parties regardless of being upstream or downstream and not to the expense of the other.

Apart from the above mentioned elements, there are also other elements constituting the water security concept, which are as follows: climate change, to maintain the ecosystem with both human and nature dimensions, to accurately evaluate the existing capacity with its shortcomings and to manage water demand among the sectors.

As a result, the water security concept is likely to attract more attention on the international agenda in the coming years. As a result of the efforts for considering this issue on the agenda of the United Nations Security Council or the General Assembly, a new period is likely to start in which all issues relating to water will be explained by the concept of "water security".

(1) For the text see http://www.unwater.org/downloads/watersecurity_analyticalbrief.pdf

"The Water Security Concept is on the Process of Redefinition", Seyfi Kılıç, ORSAM, April 2013, online at: http://www.orsam.org.tr/en/WaterResources/showAnalysisAgenda.aspx?ID=2218

BACK TO TOP

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

❖ Ajit Pawar diverted irrigation water to industry

MUMBAI: Deputy chief minister Ajit Pawar might have apologised for his callous "urinating-in-the-dam" statement that belittled the tragedy of Maharashtra's farmers facing the worst drought in decades. But his apathy for them predates the blunder by years.
Between 2003 and 2011, as the water resources minister and then finance minister, Pawar chaired or partook in a high-powered committee that diverted almost 2,000 million cubic metre (mcm) of water meant for irrigation to industries. Equivalent to the storage capacity of Maharashtra's largest dam Koyna, the large-scale redirection from 51 dams reduced the state's irrigation potential by about four lakh hectaresâ€”an area about nine times the size of Greater Mumbai. This coincided with, as repeatedly highlighted by TOI, criminal cost escalations of many dam projects in the state.

According to information collated by Prayas, a Pune-based NGO, the committee allowed 40% to over 80% of water in 23 projects to be diverted to industries. From Hetwane dam in Raigad district, 88% water was rerouted. From Amba and Pavna dams in Pune district, 81% water was allotted away from irrigation and to industries.

The decisions to funnel away water meant for farmers were taken, according to Prayas, without consultations with the affected people andâ€”as is mandated under the Maharashtra Water Regulatory Authority Act of 2005â€”with the Maharashtra Water Regulatory Authority.

The committee's decisions were in line with the state water policyâ€”which gives preference to industries while apportioning waterâ€”but disregarded the Central water policy that sets irrigation as a higher priority than industries.

This partiality continued until 2010, when charges were made in the Bombay high court of illegalities in water diversion.

As protests erupted around the state, the government sought to legalize the high-powered committee's decisions by inserting various clauses in the Water Regulatory Authority Act through an ordinance. It was able to ram the bill through the Lower House on April 14, 2011 at 1.30am, when barely any members were present. However, the Upper House rejected the bill, causing great embarrassment to the government.

Faced with defeat, the chief minister disbanded the high-powered committee and assured that decisions of water diversion would be taken by the cabinet, not the committee. The new resolve briefly led to heightened friction between the Congress and its ally NCP.

"This is not a debate on industries versus agriculture. It is about how water meant for farmers was diverted without public consultation," said a Prayas member. The NGO will release its report on water diversion later this month.

In a paper last year, Prayas said Maharashtra's 2003 water policy, for the first time in any Indian state, assigned "higher priority" in water allocation to industrial use as compared to irrigation.

The state had then issued a government resolution instituting a ministerial-level committee. Called high-powered committee, it was headed by Pawar in his capacity as water resources minister and included five ministers from the finance, water supply and sanitation, industry, and agriculture departments.

The state empowered the committee to decide on allotting and reserving water for non-irrigation users, including private industries. The state water resources department issued a circular, stating that up to 25% of water diversion from dam storage would be cleared by chief engineer. Any diversion above 25% of the limit was to be referred to the high-powered committee.

In eight years, the committee held 21 meetings. Official records show that the agriculture minister's attendance was barely 35%. The Prayas representative said, "The meetings were marked by poor attendance. Except for Pawar, other members recorded poor attendance. Whenever water is to be diverted for non-irrigation purpose, the agriculture minister must be present. However, his attendance was only for 35%. Other members recorded attendance of 50%."

"Ajit Pawar diverted irrigation water to industry", 10/04/2013, online at:
http://articles.timesofindia.indiatimes.com/2013-04-10/india/38433705_1_water-allocation-maharashtra-water-regulatory-authority-water-diversion

BACK TO TOP

❖ National Policy Dialogue Steering Committee in Turkmenistan adopts principles for a draft Water Code

The development of Integrated Water Resources Management (IWRM) in Turkmenistan reached a new milestone on 5 April with the adoption of principles for the draft Water Code, United Nations Economic Commission for Europe said.

The draft Water Code is being developed within the framework of the National Policy Dialogue (NPD) by the Turkmen inter-ministerial expert group with participation of experts from UNECE and UNDP. Following the approval by the NPD Steering Committee, it is expected that the legislative coordination process on the draft Water Code will start soon. The principles in the draft code include Integrated Water Resource Management, saving water, public participation and access to information. Its elaboration was fostered by the recent accession of Turkmenistan to the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) on 29 August 2012.

The meeting was supported by the "Water Management and Basin Organisations in CentralAsia" project, which is funded by the European Union and implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Transboundary Water Management in Central Asia Programme.

"National Policy Dialogue Steering Committee in Turkmenistan adopts principles for a draft Water Code", 12/04/2013, online at: **http://www.globalpost.com/dispatch/news/asianet/130412/national-policy-dialogue-steering-committee-turkmenistan-adopts-princip**

BACK TO TOP

❖ MoWR or big dam lobby, ask activists

The Union Ministry of Water Resources (MoWR) along with allied government organisations like Central Water Commission (CWC), Central Ground Water Board (CGWB), National Water Development Agency (NWDA) and other related Central ministries have collectively organised India Water Week at Vigyan Bhawan in Delhi from Monday. Water rights activists and organisations have slammed what they call "damning proof of how the ministry and the organisations work like a big dam lobby serving interests of corporate players instead of people of the country," calling it "worse mockery of the drought-hit than the urine comments of Ajit Pawar"

Sponsors of the week long show - themed "Efficient Water Management: Challenges and Opportunities" - include state dam and irrigation organisations to private sector construction and irrigation logisitics majors along with Punatsanchu Hydropower Authority of Bhutan. "They know that having people's groups and representatives of civil society on board will mean answering some tough questions," said Himanshu Thakkar of the South Asia Network on Dams, Rivers & People who added, ""Though the website says all stakeholders involved in India's water sector will participate, we see no sign or scope for the most important stakeholders: farmers, women, tribals, fisherfolk or even critical voices from civil society".

Every participant has to pay Rs8000 as registration and independently arrange their own travel and stay. "99% Indians can't afford this. They'll effectively be kept out of an event ironically organised at public expense by the Centre in the name of the very people it chooses to keep away," Manoj Mishra, Yamuna Jiye Abhiyaan, Delhi pointed out.

The programme page on the MoWR website says: "The theme has been decided after wide consultations amongst national and international stakeholders and workers," about a meeting chaired by the Central Water Commission Chairman where each one of the 15 participants were government officers!

What is worse is that while the people of India have yet to see the final version of the new NWP, but those who pay the registration fees, will be first to see it. More importantly, it may be recalled that majority of the states that participated in the National Water Resources Council meeting held on Dec 29, 2012 opposed the policy. If one were to go by the latest draft available here, the new policy advocates treated water as an "economic good", encouragie the private sector as service providers despite past experiences showing how disastrous this can be.

A quick look at the detailed programme shows that the event will have four sessions on hydropower: water availability and issues in development of hydropower; hydro power as green power;

hydropower generation – impact on environment. "The formulation, description and available names of moderators of these sessions clearly show how the MoWR is acting like a big dam lobby," says Parineeta Dandekar of SANDRP who points out, "The first session does not talk about water availability issues at all, but about the huge untapped hydropower potential, like any lobbyist would do. The moderator is AB Pandya, known for his big dam fetish."

The 2nd session's moderator is Dasho Chhewang Rinzin from Bhutan's Druk Green Power Corporation Limited. "While former environment minister Jairam Ramesh, Assam Power Minister and many others are on record on most all EIAs in India are dishonest, cut and paste jobs, to expect Managing Director of Bhutan corporation to moderate such a session is clearly inappropriate decision," says Dandekar who adds, "Bhutan, despite its Gross Happiness Index, gives scant regard for social or environment issues of hydropower projects."

The 3rd session is, to be moderated by the Central Electricity Authority (CEA) chairman, which has been sanctioning every hydropower project that comes its way, without even fulfilling its duty under Section 8(2) of India Electricity Act 2003, which asks CEA to evaluate the impact of the projects on basin wide context. The 4th session actually talks only about positive impacts of hydropower on environment. "Even negative impacts, may not necessarily be characterised as negative." The organisers don't even acknowledge the existence of a detailed World Commission on Dams report on the issue.

Even as MoWR mandarins host this multi-crore water week, many regions across Maharashtra, Gujarat, Karnataka, Tamil Nadu and Kerala are facing drought. "Wonder what an event clearly advocating more big dams it would say about Maharashtra which has the highest number of big dams and is yet reeling under its worst drought ever," says Dandekar, "Big dams are not going to be solutions of India's water scarcity, they are actually going to worsen it. Real solutions will mean an honest review of past experiences, which is what an event like the Water week should start from."

"MoWR or big dam lobby, ask activists", 10/04/2013, online at: **http://www.dnaindia.com/mumbai/1820935/report-mowr-or-big-dam-lobby-ask-activists**

BACK TO TOP