



# ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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



**ORSAM WATER BULLETIN**  
*15 August 2017 - 21 August 2017*

**Powering west Mosul's water plants**

Mosul was one of the last major holdouts in Iraq of the Islamic State of Iraq and the Levant (ISIL), who took control of the city in mid-2014. The military campaign to liberate the city started in October 2016 and continued for 10 months. Nearly one million civilians were evacuated during one of the largest managed evacuations in modern history.

Mosul was declared fully liberated by the Prime Minister of Iraq in early July, and the difficult work of rebuilding has begun. More than 700,000 civilians are still away from their homes – waiting to restart their lives. Through its Funding Facility for Stabilization, UNDP has been implementing projects in Mosul in close proximity to the front line since late 2016. More than 300 are already under way and hundreds more are starting in coming weeks.

In support of the Government of Iraq, the Facility focuses on speed and functionality and is designed to help jumpstart local economies once the fighting stops. Ninety-five percent of all stabilization initiatives are contracted through the local Iraqi private sector. This lowers costs, ensures high levels of local ownership and produces jobs in the areas where they are needed the most.

In the case of Mosul, the UNDP is contracting the local private sector to rebuild grids from the bottom-up and connect households as quickly as possible to the electricity, water and sewage networks. Public work crews are removing rubble and upgrading public buildings. Tens of thousands of Muslawis are working on stabilization initiatives – receiving income and spending it on essentials in the local market. Schools and health facilities are being rehabilitated, and more than 40 engineers and experts have been embedded in government department

We've had to find quick pragmatic solutions for difficult problems. The New Water Treatment Plant (al-Ayman al-Jadeda), which provides safe drinking water to half the population in western Mosul, is a good example. Rehabilitating the facility has involved fixing pumps and internal machinery as well as ensuring a predicable supply of power. After surveying local capacities, teams on the ground agreed on a pragmatic division of labour. With the Government providing technical guidance, the Danish Refugee Council replaced the transformers, which they had on hand, while UNDP strung a high voltage line across the Tigris river from eastern Mosul, where the Government has already restored parts of the power grid, to the water plant.

The operation has been done very quickly at very low cost. Tractors and pulleys were used to hoist the cables on either side of the river, while skilled workers fixed the cables on top of the towers. The heat on the exposed riverbank in the middle of the Iraqi summer was punishing, and in between dragging cables and climbing hot metal towers in the sun, workers jumped into the Tigris to cool off. The line itself was strung across the river in just one day; by nightfall, the electricity directorate had reestablished current on the line

There was a terrific atmosphere at the site. The workers on the project - all from Mosul - felt a great sense of pride. As the wire was pulled up from the river, everyone grabbed their mobile phones to snap selfies to send to their friends. Everything we do is done in the name of the Government. UNDP doesn't brand its work with signs and posters. Iraqi flags were the ones flying at the site and during the hoisting.

There's a lot more to do in western Mosul, and we will be there to help the Government and people of Iraq build back one of the Middle East's most beautiful and important cities.

16/08/2017 online at: <http://www.undp.org/content/undp/en/home/blog/2017/8/15/Powering-West-Mosul-s-water-plants.html>

### **The Case for Improved Water Resource Management in Kirkuk Governorate, Iraq**

Iraq's recent history has been violent and turbulent. This has fractured the country and created deep social divisions. Today, Iraq is a state in transition. It is trying to establish rule of law, strengthen democratic institutions and provide basic services. At the same time, pressures on the quantity and quality of its water resources are growing daily. Aside from major transboundary water management issues, abstractions for agriculture, mining, industry and hydroelectricity are all competing for a finite quantity of water. Discharges and effluents from all these uses and users threaten to pollute aquifers and watercourses, affecting other downstream users. As Iraq's population grows and its economy matures, these pressures will only increase.

This report brings together some perspectives on the state of water resources and basic services in Kirkuk governorate in the north of Iraq. It begins with an overview of the country's natural environment, before describing its institutional arrangements for managing water resources. It next discusses the current water situation in Kirkuk and distils the main problems that need to be addressed. It then goes on to examine the practical role that Oxfam and its partners can play in support of government and local institutions. Measures taken now could potentially mitigate some of the risks to Iraq's precious water resources.

The report highlights the fact that water resources in Kirkuk governorate are in a critical state. The war with Islamic State (ISIS) has destroyed water supply infrastructure in two of its four districts. The general perception is that basic services are in a state of decline, and there is a growing imbalance between water supply and demand. Supply is unreliable, with households in Kirkuk city receiving water only every two days. Only 16 percent of the urban population are connected to a public sewerage system.<sup>1</sup> Industrial waste, untreated sewage, landfill sites and fossil fuel combustion are contaminating water resources. Amid the ongoing crisis, unresolved political tensions and the centralization of power in Baghdad have led to severe underinvestment in regional water and sanitation services. Unresolved land claims and competing claims on water within the governorate are not being adequately addressed. This has occurred at a time when the local population has increased by 25 percent as a result of human displacement. It is also projected that by 2025 Iraq will not have enough water, of adequate quantity and acceptable quality, to meet its development requirements. Today only one of Kirkuk's four aquifers provides water suitable for human consumption.

Meanwhile domestic consumers compete with agricultural and industrial users for water from the Lesser Zab River. Oxfam recognizes that it must engage in some form of water resource management to help address these problems. However, the feeling in Kirkuk is that humanitarian projects are small in scale and that they should evolve beyond emergency interventions. Consequently, the water, sanitation and hygiene (WASH) sector should consider wider environmental issues and plan accordingly. A key requirement is to define the main water management problems that need to be addressed and identify influential stakeholders to work with. Although there are many problems to address, the first step in managing water resources is to 'know what you have got' – in other words, to help monitor the resource so that water quantity and quality can be assessed. This approach will serve to inform decision making and build resilience. Over time it will also be necessary to respond quickly to problems and opportunities that arise. When it comes to the methods to apply, it is evident that a 'learning by doing' approach should be adopted. This will enable Oxfam to build its own internal capacity and will lend credibility to future advocacy campaigns. For wider water management problems, the recommendation is to focus initially on less contentious water management problems. This will encourage different water users to work in a collaborative manner, before looking at more problematic issues.

21/08/2017 online at: <http://reliefweb.int/report/iraq/case-improved-water-resource-management-kirkuk-governorate-iraq>

### **Red Cross hopes to repair Tabqa dam near Syria's Raqqa**

The International Committee of the Red Cross (ICRC) plans to carry out urgent repairs to Tabqa Dam near the Syrian city of Raqqa in an area recaptured from Islamic State, a spokeswoman said on Wednesday.

The aid agency was able to enter Raqqa and Hassakeh provinces in late July for the first time in four years to see the destruction wrought by the jihadists, the fighting and U.S.-led coalition air strikes.

U.S.-backed Syrian militias drove Islamic State out of the town of Tabqa and the adjacent dam, 45 kms (25 miles) west of Raqqa along the Euphrates River, in May, but it took time to negotiate safe access.

"The priority for us right now is the water issue," ICRC spokeswoman Ingy Sedky, speaking from Damascus, told Reuters.

Islamic State has lost swathes of territory to separate campaigns being waged by Syrian government forces backed by Russia and Iran, and by the U.S.-backed Syrian Democratic Forces (SDF), which is dominated by the Kurdish YPG militia.

SDF officials, focused on capturing Raqqa city, say the advances are proceeding cautiously as Islamic State uses snipers, car bombs and booby traps.

Tabqa dam, whose control room was damaged, is the main source of electricity for all of Syria and provides irrigation water for Raqqa, Deir al-Zor and Rural Aleppo, Sedky said. The

ICRC and Syrian Arab Red Crescent sent generators some months ago to keep it operating but now engineers are needed.

Sedky said the organization was discussing maintenance work to pumps and to provide lubrication oil. It aims to restart water pumping stations that serve tens of thousands of displaced civilians who have fled Raqqa city.

ICRC staff visited five camps holding about 25,000 of the 200,000 displaced people who have fled fighting in Raqqa and Deir al-Zor cities.

"We've started in one of the camps to distribute bottles of water on a daily basis," Sedky said, referring to Arisha camp in Hassakeh, which houses 6,000 people in an area contaminated with toxic waste that used to serve as a petroleum refinery.

"Some of the camps didn't even have toilets," she said. "Waste management will also be our focus and the installation of latrines."

ICRC health experts will also evaluate what medical supplies are needed in the five camps.

"The people we talked with, many of them lost their houses or family members because of the continuous bombardments inside the city. Many schools, hospitals and health centers were destroyed," Sedky said. "They say nothing is functioning inside Raqqa city."

Between 10,000 and 20,000 people remain trapped in Raqqa City, according to United Nations estimates.

"We know there are still thousands and thousands that must be given safe passage in order to leave the city," she said.

16/08/2017 online at: <https://www.reuters.com/article/us-mideast-crisis-syria-redcross-idUSKCN1AW1VN>

### **Israeli water researchers discover how to optimize graywater reuse in desert regions**

With over one billion people across a hundred countries thirsting for a solution to desertification, the Ben-Gurion University of the Negev (BGU) Zuckerberg Institute for Water Research set out to find a solution for optimal living conditions in arid environments.

Research into gray water reuse for agricultural irrigation had, until recently, placed most of the focus on gray water's health risks for human consumption; however, this was proven safe by researchers at the Zuckerberg Institute in 2015. This finding enabled scientists to delve into the next stage of gray water research: how it affects environmental outcomes, particularly on soil properties in different ecosystems.

According to a new study by Prof. Amit Gross, head of the Department of Environmental Hydrology and Microbiology in the Zuckerberg Institute, treating gray water using bio filtration is more efficient for irrigation in arid, sandy soils.

Prof. Gross and his research team found that gray water does not infiltrate through the soil as easily as freshwater and is slower to reach plant roots, causing a condition known as gray water-induced hydrophobicity. Instead of infiltrating into the ground as freshwater does, the water collects on the surface of the soil, leading to possible erosion.

“Graywater-induced hydrophobicity is likely temporary and disappears quickly following rainwater or freshwater irrigation events,” says Prof. Gross. “However, it is a more significant concern in arid lands with negligible rainfall as compared with wetter regions.” By treating the gray water using biofiltration to degrade the hydrophobic organic compounds, the problem is eliminated.

In the study, the researchers examined how gray water induces soil hydrophobicity, as well as its degree and persistence. They created three gray water models using raw (untreated), treated and highly treated gray water to irrigate fine-grained sand compared to a freshwater control. The result was that only the raw gray water irrigated soil showed hydrophobicity, which could be mitigated with both moderately and highly treated solutions.

“Onsite reuse of gray water for irrigation is perceived as a low risk and economical way of reducing freshwater use and, as such, it is gaining in popularity in both developing and developed countries,” says Prof. Gross. “As many government authorities are establishing new guidelines, the results of this study reinforce the recommendations to treat gray water before reusing for irrigation, particularly in arid regions.”

18/08/2017 online at: <http://www.jerusalemonline.com/news/in-israel/health-and-environment/israeli-water-researchers-discover-how-to-optimize-graywater-reuse-in-desert-regions-30428>

### **Water dams a keystone project: Aoun**

President Michel Aoun Wednesday called for the construction of water dams in Lebanon a keystone project and a step towards sustainable development, the state-run National News Agency reported.

Aoun said that establishing dams in various areas of Lebanon would help achieve balanced development. He also praised the efforts of the Water and Energy Ministry during an inspection of the water dams.

He continued to say that dams are an essential tool to improving the manufacturing and agricultural sector. The electricity sector could also benefit, since water dams can create hydroelectricity at a very low cost.

Aoun was accompanied by the Water and Energy Minister Cesar Abi Khalil, the Foreign Minister Gebran Bassil and the Minister of State for Presidency Affairs Pierre Raffoul.

16/08/2017 online at: <http://www.dailystar.com.lb/News/Lebanon-News/2017/Aug-16/416162-water-dams-a-keystone-project-aoun.ashx>

### **Jordan, Australia to cooperate on water scarcity, drought**

Australia, which has decades of experience in the management of scarce water resources, will offer its expertise to Jordan and help it strengthen its resilience to water scarcity and drought, which was further exacerbated by a massive inflow of Syrian refugees and dry seasons, officials from both countries announced Sunday.

The announcement follows a series of meetings that brought together government officials from both countries a few days ago with the aim of drawing up a roadmap for cooperation in the management of scarce and limited water resources.

Welcoming the Australian ambassador in Amman, Miles Armitage, and a team from Australia's High-Level Panel on Water (HLPW), Minister of Water and Irrigation Hazem al-Nasser said Jordan is one of the world's countries most complying with international water treaties and always seeks to establish closer regional cooperation on trans-boundary waters.

The Australian ambassador said his country appreciates Jordan's efforts to meet the water needs of citizens and refugees, saying Australia was committed to supporting countries such as Jordan to improve their water resources management and lessen the impact of drought.

20/08/2017 online at:

[http://petra.gov.jo/Public\\_News/Nws\\_NewsDetails.aspx?Site\\_Id=1&lang=2&NewsID=314895&CatID=13&Type=Home&GType=1](http://petra.gov.jo/Public_News/Nws_NewsDetails.aspx?Site_Id=1&lang=2&NewsID=314895&CatID=13&Type=Home&GType=1)

### **Emirates Red Crescent to develop water network in Hadramaut**

The Emirates Red Crescent (ERC) has announced that it will be implementing a water network project in the Al Misbah and Al Asam districts of Al Soum in Yemen's Hadramaut Governorate.

Under the terms of the agreement, which ERC signed on 16 August, 2017, the scope of the project will include the drilling, digging, and connection of individual wells to a primary water reservoir in the area.

It also covers the refurbishment of internal water networks and the construction of a water pump station.

During the signing of the agreement, Ahmed Al Neyadi, head of the ERC team in Hadramaut, pointed out that water shortage is the biggest problem faced by people in desert areas.

He went on to stress the need to immediately start implementing the project to provide safe and clean drinking water to the people in the governorate, UAE state news agency, WAM, reported.

Al Neyadi also noted that ERC has adopted an overall integrated plan to implement projects related to water, health, education, and infrastructure, adding that infrastructure projects are among ERC's priorities.

17/08/2017 online at: <http://www.constructionweekonline.com/article-45925-emirates-red-crescent-to-develop-water-network-in-hadramaut/>

## **Thumama water project partial opening by year end**

The Al Thumama water reservoir project (Package-C), part of the Water Mega Reservoir Project, will partially start operating by the end of this year, disclosed a top official of Qatar General Electricity and Water Corporation (Kahramaa).

“We will start pumping water from the project by the end of this year. It will be a partial opening. Later, we will lay the pipeline and open all the other facilities gradually. We hope to commission the whole project by the end of next year,” Ahmed Nasser al-Nasr, director, technical affairs, Kahramaa, explained.

Al-Nasr was speaking to the media on the sidelines of a contract signing between Kahramaa and Voltamp Oman for the supply of transformers.

The official also revealed that Kahramaa has started the work on a new power generation facility. “It is under the planning stage now. We have already identified the consultants for the project. We have applied to the municipality to allocate the land for the new facility.”

“We expect to start the work by next year. The location is not yet decided. We have identified three to four locations. Most probably, it could be in the north,” he noted.

Al-Nasr said that Kahramaa has completed a study on the use of ground water in the country. “We have identified all wells which are suitable for drinking water. We have also selected the ones that needed some treatment to be made suitable,” explained al-Nasr.

“Last year, we completed all the works to refurbish all those wells. Now they are fully equipped with RO (Reverse Osmosis) plants and filling stations. They are meant for potable drinking water supply, only in emergency situations,” he continued.

“The wells are spread all over Qatar and mainly in the north of Doha. They are fully ready for operation anytime,” highlighted the official.

According to the official, Qatar has about 20% reserve of drinking water at present.

“This will cover the demand for Qatar in the near future. Depending on the demand at later years, we will start the new generation facility. The water reserve mega project will increase the water reserve significantly,” maintained al-Nasr.

The official also pointed out that the power and water conservation effort has got very good responses from the citizens as well as the residents.

“We have introduced metre reading for Qataris and they receive text message about the use of water and power. The nationals have started responding very positively and it is reflected in the conservation efforts,” he added.

21/08/2017 online at: <http://www.gulf-times.com/story/561047/Thumama-water-project-partial-opening-by-year-end>

**Expert: GCC Gov't should invest in wastewater collection systems**

Gassan H. Mutwali, director of strategy & business development, Xylem, says that wastewater treatment plants face issues of aging infrastructure, need for operational efficiencies, and a dynamic regulatory environment.

In an interview with MEP Middle East, Mutwali said: "Utilities are increasingly prioritizing asset optimisation, efficient non-revenue water solutions and intelligent networks and systems. This has led to a shift and drive towards smarter systems and digital solutions."

He said that Xylem's recent acquisitions of companies like Visenti and Sensus enables it to create a differentiated offering with regards to leakage management, communication systems, metering technologies, applications and data analytics that improve utility operations worldwide to achieve operational efficiencies.

Mutwali added: "Water security is important for a region that has around 5% of the world population but less than 1.5% of the world's renewable freshwater resources. Water security needs to be addressed from both a demand and supply point of view.

We need more awareness programs and conservation, as well as more stringent regulations. Every year, around 1.7 trillion gallons of water is lost because of leaky and broken pipes.

And 10 billion gallons of raw sewage is released into waterways, as a result of insufficient infrastructure. Investing in new infrastructure, and updating existing infrastructure, is a quick win with big benefits.

"Water re-use is another exciting area that is gaining momentum. Governments can achieve better water security by investing in wastewater collection systems and water re-use technologies.

In Kuwait, for example, Xylem supplies solutions to a wastewater treatment and reclamation plant in Sulaibiya that processes 600,000m<sup>3</sup> of wastewater per day.

Our technologies are utilized to help Kuwait draw maximum value from its limited water supplies, a process that is of particular importance for a country that receives less than 120 millimeters of annual rainfall. Another instance is treatment plants in Saudi Arabia, where an integrated wastewater treatment system from Xylem will help the facility generate 200,000m<sup>3</sup> of treated water per day."

17/08017 online at: <http://www.constructionweekonline.com/article-45934-expert-gcc-govt-should-invest-in-wastewater-collection-systems/>

### **Launching Oman Water & Wastewater Conference, Supported by Haya Water**

Advanced Conferences & Meetings (ACM) is launching Oman Water and Wastewater Conference on 6-7 November 2017 in Muscat, which will focus on delivering Oman's water mandate and connecting its sewage treatment networks.

Oman government is planning to substantially raise the country's water desalination capacity, to meet the projected demand from households across the country within the next six years.

The state-owned Oman Power and Water Procurement Company (OPWP) has taken major steps to increase the desalination capacity of independent water projects (IWPs) by 123.6 million imperial gallons of water per day (MIGD) in the next six years.

Officially supported by Haya Water, the Oman Water & Wastewater Conference will bring together water stakeholders who have a mandate to meet the country's demand for water and connect its treatment systems by 2018. Oman remains a lucrative business source for contractors and vendors for several years as projects require upgrading or new construction for both water generation and transmission, desalination and treatment.

This event will host national and international speakers from Haya Water, Oman Environmental Services Holding Co. SAOC - be'ah, Atkins Middle East & Africa, Middle East Desalination Research Center (MEDRC), International Center for Biosaline Agriculture – ICBA, and many more.

18/08/2017 online at: <http://www.pr.com/press-release/726806>

### **Nile water a matter of life or death to Egypt: Al-Sisi**

President Abdel Fattah Al-Sisi headed to the Rwandan capital city Kigali Tuesday, to hold discussions with the Rwandan President Paul Kagame. After his arrival, Al-Sisi visited the memorial of the victims of the genocide in Rwanda and the museum which documents the genocide which has happened in the nineteenth of the last century, according to a statement from the presidency.

On Monday, Al-Sisi headed to Tanzania in a four-day tour to four African countries include Rwanda, Gabon, and Chad, as part of Egyptian keenness on boosting its relations with the other African countries.

In July 2016, the president visited Rwanda for the first time during his presidency, to attending the African summit. Egypt also received several Rwandan ministers to attend regional and bilateral meetings.

Al-Sisi expressed Egypt's proud of its relations with Tanzania during his meetings with Tanzanian President John Magufuli in the Tanzanian capital city, Dodoma, according to a statement from the presidency.

The president asserted Egypt's support for the Nile Basin countries with Egyptian technical experts to achieving development in these countries, stressing Egypt's keenness to achieving the maximum benefit from the Nile River for all Nile Basin countries without harming Egypt's water interests, and taking into consideration the Egyptian concerns in this regard as a death and life matter, the statement read.

According to the statement, the Tanzanian President expressed his country's understanding of the importance of the Nile River for Egypt as the main source of water, expressing his trust in Nile Basin countries to reach an agreement that all parties would accept.

The visit is the first that an Egyptian president visits Tanzania since 1968.

Al-Sisi pointed out that Egypt's foreign policy basis on not intervening in other countries' internal affairs, not plotting, and working for resolving problems by negotiations and cooperation to achieve peace and development.

Egypt is looking forward to boosting relationships with Tanzania in all fields, in light of the big economic abilities in the two countries. He also asserted the importance of working on boosting cooperation between the private sector in the two countries, pointing out to the successful activities by the Egyptian companies working in Tanzania, and Egypt's hope to maximize cooperation between Egyptian and Tanzanian companies in fields of common farms and manufacturing agricultural products in addition to fishing, fauna, mining, and medical industry, according to the statement.

The two sides discussed several regional and bilateral issues, such as confronting terrorism, and the exerted efforts for achieving development in Nile Basin countries.

The Tanzanian President praised the level of relations between his country and Egypt, asserting his country's keenness on boosting this relation especially in economic and commercial fields. Magufuli also expressed his appreciation for the Egyptian technical support in digging wells, and the Egyptian butchery which helps in meeting the Egyptian demand on meat.

At the end of the meeting, Al-Sisi invited his Tanzanian counterpart to visit Egypt to participate in the international conference for youth and Africa 2017 forum which set to be hold in November and December; the invitation was welcomed by Magufuli.

15/08/2017 online at: <https://dailynewsegypt.com/2017/08/15/nile-water-matter-life-death-egypt-al-sisi/>

### **Sisi's African tour seeks to ensure water security, boost trade cooperation**

The recently-concluded African tour of Egyptian President Abdel-Fattah al-Sisi seeks closer ties with African states to ensure the security of Egypt's share of the Nile River water and to promote mutual trade and investment, said Egyptian experts in African affairs.

President Sisi wrapped up Thursday a four-day African tour that included Tanzania, Rwanda, Gabon and Chad, during which he stressed Egypt's keenness on boosting political coordination and economic cooperation with African states.

The tour comes amid Egypt's hopes to open further African markets for Egyptian products and concerns about its annual share of 55.5 billion cubic meters of the Nile River water.

Egypt shares the river with 10 other Nile Basin countries, two of which are included in Sisi's African tour, namely Tanzania and Rwanda. Ethiopia, another Nile Basin state, is currently building a giant dam, named the Grand Ethiopian Renaissance Dam (GERD), which extends on an area of 1,800 square kilometers and is scheduled to be completed by the end of 2017.

"Sisi's African tour seeks coordination with African states on the water resources issue, the regional security of Eastern Africa, the terrorist attacks in Western Africa and the commercial

exchange between Egypt and African states," said Amany al-Taweel, director of the African Unit at Cairo-based Al-Ahram Center for Political and Strategic Studies.

The expert believes that the Egyptian former leaderships neglected ties with African states over the past few decades to the point that an influential African country like Tanzania has not been visited by an Egyptian president since 1968. Gabon also has not seen an Egyptian leader for over 40 years.

"The current Egyptian-African approach shows the awareness of Sisi's leadership of Africa's importance to Egypt in terms of general security as well as water security and also as a source of boosting Egyptian economy," Al-Taweel told Xinhua.

"Africa for Egypt is either an opportunity or a threat," she said, arguing that Sisi's leadership has the right vision on how to interact with African states but it lacks the sufficient tools for that, such as an Egyptian-African maritime commercial fleet and Egyptian state-urged direct investments in African states.

"Egypt should also oblige its businessmen who seek loans to invest in Africa to provide a social service besides their projects in African states, such as building a school, a hospital, a training center, etc," Taweel illustrated, noting that shared development always promotes mutual trust.

Egypt's ties with Ethiopia have seen ups and downs since Ethiopia started the dam project in April 2011 while Egypt has been suffering turmoil following an uprising that toppled former longtime president Hosni Mubarak.

When Sisi took office in 2014, he showed understanding of Ethiopia's aspiration for development through the GERD that would produce around 6,000 megawatts of electricity to the country.

In March 2015, the leaders of Egypt, Ethiopia and Sudan signed an initial cooperation deal on the principles of sharing the Nile River water and the construction of the GERD, which will be Africa's largest dam upon completion with a total volume of 74 billion cubic meters.

Earlier in 2010, an agreement was signed among some Nile Basin states in Uganda's Entebbe about the river water shares, but it was rejected by Egypt and its downstream partner Sudan, for the agreement affects their usual annual shares of Nile water.

On the other hand, relations between Egypt and Sudan have been tense over the past couple of years over various issues. In May, Sudanese President Omar al-Bashir accused Egypt of providing military support to armed rebels in his country. The two countries also have a territorial dispute over the border region of Halayeb and Shalateen that is currently under Egyptian sovereignty.

"Including two Nile Basin countries in Sisi's African tour is an opportunity for Egypt to underline its concerns over the water scarcity and willingness to cooperate with all Nile Basin

partners and sign the Entebbe agreement once its concerns are addressed," said Mona Omar, former assistant foreign minister for African affairs.

Reaching consensus over Entebbe agreement needs a lot of efforts, talks and meetings, as it should address the concerns of downstream countries on the one hand and assist development aspirations of upstream countries on the other hand, Omar explained.

The Egyptian-African approach is seen by many experts as a win-win situation in the political, security and economic arenas, while Egyptian businessmen and investors believe it would boost trade cooperation between the two sides and open new African horizons for the Egyptian products.

The volume of trade between Egypt and the four African states of Sisi's tour - Tanzania, Rwanda, Gabon and Chad - reached in 2016 only some 73 million dollars in total; 69 million of them are Egyptian exports and about four million are imports, according to Egypt's official MENA news agency.

The African market is vast and opportune to host Egyptian investments that would push forward development and standard of living in African states and boost the Egyptian economy as well.

"The tour also focused on this side. It addressed the economic side and the trade cooperation between Egypt and the four states, whose volume is still far below the capabilities and resources of the five countries," the ex-diplomat told Xinhua.

18/08/2017 online at: [http://news.xinhuanet.com/english/2017-08/18/c\\_136534557.htm](http://news.xinhuanet.com/english/2017-08/18/c_136534557.htm)

### **Egypt in Charm Offensive - Seeks Revision of Nile Treaty to Safeguard Water Source**

Egypt is trying to convince countries to adopt its renegotiated position on the Nile Basin Initiative (NBI) ahead of this month's Council of Waters Ministers' meeting of the riparian states.

President Abdel Fattah Al-Sisi visited Tanzania and Rwanda last week, as part of a four-state-tour that also took him to Chad and Gabon, in a diplomatic move to convince them to adopt its position and proposed agreement.

Tanzania and Rwanda recently ratified the Nile Basin Common Framework Agreement that Egypt opposes, as it lobbies for its own renegotiated and updated CFA that, it says, addresses its concerns.

While in Tanzania, President John Magufuli expressed his country's understanding of the importance of the River Nile to Egypt as its main source of fresh water, but failed to make a commitment in support of Egypt's position.

"I believe that the Nile Basin countries will reach an agreement that all parties would accept. We have agreed to continue negotiations over this issue," President Magufuli said during a joint press conference with President Al-Sisi.

The Egyptian leader admitted that they could not reach an agreement during the meeting, but both agreed on further negotiations over how best to handle the Nile Basin issue.

"We will offer our support to the Nile Basin countries so that all parties achieve the maximum benefit from the Nile without harming Egypt's water interests, and taking into consideration Egyptian concerns in this regard as a matter of life or death," President Al-Sisi said in a statement.

#### Egypt's position

In Rwanda, where President Al-Sisi held talks with President Paul Kagame, one diplomat confirmed that the Egyptian leader's visit was aimed at cementing Egypt's position on the sharing of Nile resources.

The two presidents did not take questions from journalists in Kigali but read out statements.

A statement released by Egypt's Presidency indicated that Al-Sisi pledged support for Nile Basin countries in return for favourable sharing terms of the Nile waters, which he said are a matter of life and death for his people.

"The President asserted Egypt's support for the Nile Basin countries with Egyptian technical experts to achieve development in these countries, stressing Egypt's keenness to achieving the maximum benefit from the Nile for all Nile Basin countries without harming Egypt's water interests, and taking into consideration Egyptian concerns in this regard as a death and life matter," the statement read.

President Kagame said Rwanda was happy to co-operate with Egypt on matters concerning the Nile and trade.

"Egypt and Rwanda do not share a border but we have many common interests on which our friendship is based. This includes our shared responsibility to care for the River Nile which sustains life for tens of millions of Africans as it makes its way to the Mediterranean," he said.

"We are happy to cooperate with you and all the countries in the region in pursuit of this crucial objective that we share," President Kagame said during a state banquet held in honour of Mr Al-Sisi.

#### No common ground

In an interview with The EastAfrican, Innocent Ntabana, the executive director of the Nile Basin Initiative, said a Council of Water Ministers' meeting, where the Egyptian proposals will be discussed in detail, is planned for later this month.

At the June summit in Kampala, Egypt pushed for the regional countries to replace the Entebbe Agreement with a new CFA, but most members were reluctant to accept it.

During the meeting, the heads of states, who include President Al-Sisi, Ethiopian Prime Minister Hailemariam Desalegn and Uganda's Yoweri Museveni, failed to strike common ground on the matter.

Egypt has objected to the CFA, which was adopted in 2010 and has been signed by six upstream countries -- Ethiopia, Uganda, Tanzania, Rwanda, Kenya, and Burundi -- though they are yet to fully ratify it.

Instead, the North African country has proposed its own terms to ensure maximum utilisation of Nile resources, while maintaining a colonial agreement that gives it a lion's share of the Nile.

Cairo had the backing of Khartoum but the recent fallout between Sudan and Egypt over alleged political interference and territorial disputes have left it on its own.

Egypt is seeking to have an alternative agreement signed by the heads of states, which will accommodate a number of principles governing the management of the Nile water.

This new agreement, which it failed to push through at the Entebbe talks in June will also set up the main lines of co-operation and decision-making mechanisms in relation to any project on the river.

Cairo's main drive is that, as much as the 2010 Entebbe agreement was binding, it is yet to be final, as not all signatory countries have ratified it.

The Nile Basin countries dispute Egypt's historic share of the Nile water. There are plans to set up the Nile Basin Commission to enforce demands of equitable utilisation of the Nile waters.

#### Nile Basin Initiative

Born almost two decades ago in Dar es Salaam, following the signing of the minutes of the meeting by nine of the Nile ministers of water resources in attendance, the NBI sought to foster co-operation and sustainable development of the Nile for the benefit of all the inhabitants of those countries.

However in 2010, major differences occurred amongst countries over water security, championed by Egypt and Sudan. This created an impasse.

In 2010, it was Ethiopia, Tanzania, Uganda and Rwanda that signed the Co-operative Framework Agreement (CFA) and were a year later to be joined by Kenya and Burundi.

The CFA has since been ratified by Rwanda, Ethiopia and Tanzania but it requires a total of six instruments of ratification to enter into force. To date, Sudan and Egypt continue to reject the CFA.

Kampala is the current chair of the Nile Council of Ministers of Water Affairs of the NBI, which has Kenya, Rwanda, Tanzania, Democratic Republic of Congo, Burundi, South Sudan, Egypt, Ethiopia with Eritrea having an observer status.

21/08/2017 online at: <http://allafrica.com/stories/201708210932.html>

**Sudan's Bashir aims to ease Egypt concerns over Nile dam**

Sudan's President Omar Al Bashir said on Thursday that the construction of Ethiopia's controversial Grand Renaissance Dam on the Nile River would not impact water supplies to Egypt as feared by Cairo.

Visiting Ethiopian Prime Minister Hailemariam Desalegn, for his part, said the project was a "win-win" for the peoples of all three countries if it was not politicized.

Construction of the massive dam on the Blue Nile in Ethiopia has poisoned relations between Cairo and Addis Ababa, with Egypt fearing its share of water from the Nile will be hit once the project is completed.

"We are fully committed to ensure that the Egyptian share of the Nile water will not be affected because of the building of the Renaissance Dam," Bashir said at a joint press conference in Khartoum with Desalegn.

Egypt, which is almost totally reliant on the Nile for agriculture and drinking water, says it has "historic rights" to the Nile guaranteed by treaties from 1929 and 1959.

The treaties grant it 87 per cent of the river's flow, as well as the power to veto upstream projects, according to Cairo.

The Blue and the White Nile rivers converge in Khartoum and from there run north into Egypt as the Nile.

Desalegn called for the issue of the dam not to be politicized.

"This is more of a technical issue and it is not political," he said. "If we don't politicize it, then we will reach a conclusion that is a win-win for all our people."

Bashir said Khartoum too had concerns initially about the safety of the dam, which when complete will be the largest in Africa.

"If anything happens to the dam, it will be crisis for Sudan because of the huge amount of water the dam will be storing," said Bashir.

"But Ethiopia has made some changes to the dam's structure, and now we are satisfied."

French firms Artelia and BRL are currently carrying out technical studies on the project.

The dam is designed to feed a hydroelectric project that would produce 6,000 megawatts of power — tantamount to six nuclear-powered plants.

Ethiopia began building the dam in 2012 and initially expected to commission it in 2017. Ethiopian media reports say that only about 60 per cent of the construction has so far been completed.

17/08/2017 online at: <http://www.jordantimes.com/news/region/sudan%E2%80%99s-bashir-aims-ease-egypt-concerns-over-nile-dam>

**More water dams to be built in Herat province, says President Ghani**

President Mohammad Ashraf Ghani has said more water dams will be built in western Herat province of Afghanistan as he unveiled the government's new economic perspectives for the province.

The Afghan President made the remarks during his visit to Herat for the inauguration of the cotton factory.

He said the railway network between Herat and Iran will also be inaugurated in the coming weeks as the government plans to turn the province into the regional transit hub.

According to President Ghani, the government will start work for the preparation of the policy for marbles industry in Herat province in the next two weeks.

President Ghani further added that the government expects the first contract for the supply of marbles of Herat province from China.

He said the total value of the contract is expected to be around \$5 million as he expressed hopes that the new policy for the marbles industry will pave the way for the export of marbles worth hundreds of millions of dollars.

This comes as the Afghan government has stepped up efforts to utilize the resources of the country to boost the economy of the country which is largely dependent on foreign aid.

Afghanistan's geography and the vast resources of the natural resources could play a key role to create work opportunities and help elevate the economy of the country.

19/08/2017 online at: <https://www.khaama.com/more-water-dams-to-be-built-in-herat-province-says-president-ghani-03393>

### **Water scarcity looming large in Pakistan**

Like other parts of the world, water scarcity is also looming large in Pakistan as since 1951, the per capita water availability has been drastically shrunken from 5,600 cubic meters to the current level of 908 cubic meters.

The data of Population Census Organization Pakistan indicates that per capita water availability was 5,260 cubic meters in 1951, 4159 cubic meters in 1961, 2838 cubic meters in 1971, 2129 cubic meter in 1981, 1611 cubic meters in 1991, 1259 cubic meters in 2001 and 908 cubic meters in 2016.

However, the population also witnessed sharp increase during the said period and it was recorded as 34 million in 1951, 43 million in 1961, 63 million in 1971, 84 million in 1981, 111 million in 1991, 143 million in 2001 and 197 million in 2016, the data revealed.

Official sources told that around 29 million acre feet (MAF) water wasted every year in the country due to poor storage facilities and accumulation of silt in the main water reservoirs of Tarbela and Mangla.

They were of the views that only rapid increase in the population was not the sole factor of decrease in per capita water but lack of water storage capacity and conservation were also adding to this issue.

They said water scarcity already was affecting every continent.

Around 1.2 billion people, or almost one-fifth of the world's population, live in areas of physical scarcity, and 500 million people are approaching this situation.

Another 1.6 billion people, or almost one quarter of the world's population, face economic water shortage.

According to Pakistan Water Gateway, a non-governmental water-research portal, groundwater levels in the country were also dropping by a meter a year.

"If groundwater depletion continues at its current rate, the country is surely headed for widespread water poverty in next few years," it said.

"Planning for water resources development and management should be at the heart of the policy and be done in co-ordination with the cross-sector policies and projects such as agriculture, irrigation and industry sectors," it further suggested.

Cognizant of the issue, the incumbent government decided to build much awaited big water reservoirs including Diamer Basha and Mohmand dams etc from its own resources in order to increase water storage in the country.

The Mangla dam raising project and Gomal Zam dam have also been completed to store additional 2.88 MAF and 1MAF water respectively.

Meanwhile, the Indus River System Authority (IRSA) on Sunday released 312,000 cusecs water from various rim stations with inflow of 267,900 cusecs.

According to the data released by IRSA, water level in the Indus River at Tarbela Dam was 1545.35 feet, which was 165.35 feet higher than its dead level 1380 feet.

Water inflow in the dam was recorded as 157,600 cusecs while outflow 190,000 cusecs.

The water level in the Jhelum River at Mangla Dam was 1234.25 feet, which was 184.25 feet higher than its dead level of 1040 feet whereas the inflow and outflow of water was recorded as 23,300 cusecs and 35,000 cusecs respectively.

The release of water at Kalabagh, Taunsa and Sukkur was recorded as 205,200, 194,400 and 97,100 cusecs respectively.

Similarly, from the Kabul River a total of 24,600 cusecs of water was released at Nowshera and 30,700 cusecs released from the Chenab River at Marala.

21/08/2017 online at: <http://nation.com.pk/national/21-Aug-2017/water-scarcity-looming-large-in-pakistan>

