



# 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**  
*10 October 2017 - 16 October 2017*

**Denmark ready to help Iran in water management**

Denmark's Minister of Development Cooperation Ulla Tørnæs expressed her country's readiness to help Iran in water resource management.

Tørnæs said that Denmark is interested in boosting cooperation with Iran in the fields of energy, environment, water management and infrastructure.

She made the remarks during a meeting with Massoud Karbasian, Iran's economy minister in the US capital, the Iranian economy ministry reported Oct. 15.

She further referred to a cooperation agreement between EKF, Denmark's export credit agency and Iran's economy ministry, signed in 2016, as a good ground for boosting mutual cooperation.

In his turn, Karbasian highlighted Iran's regional position, saying that economic and financial cooperation between Iran and Denmark will pave the path for Copenhagen to cooperate with other countries in the region.

Karbasian has travelled to Washington, DC, to attend the annual meeting of the International Monetary Fund (IMF) and the World Bank Group (WBG).

During his stay in the US capital, the Iranian economy minister is scheduled to hold meetings with a number of his foreign counterparts.

Each year, the gathering brings together central bankers, ministers of finance and development, private sector executives, and academics to discuss issues of global concern, including the world economic outlook, poverty eradication, economic development, and aid effectiveness.

15/10/2017 online at: <https://en.trend.az/iran/business/2808259.html>

**Tehran Hosts Water, Wastewater Exhibition**

Iran's largest annual exhibition on water and wastewater, also known as Watex, opened in Tehran on Monday.

The 13th International Water and Wastewater Exhibition, which will run until Thursday, is hosting 258 domestic firms and 105 companies from Italy, Germany, Spain, France, Britain, Japan, China, South Korea and India, ISNA reported.

German, Chinese and Turkish companies are housed in their national pavilions and foreign guests and trade representatives from Iraq, Syria, Tajikistan, Armenia, Uzbekistan and Azerbaijan are planned to hold business-to-business meetings with officials from Iran's public and private sectors.

Sattar Mahmoudi, Iran's caretaker energy minister, was expected to open the exhibition at Tehran's International Permanent Fairground on Monday.

The four-day exhibition is an opportunity to raise funds for a plethora of underdeveloped and new ventures in Iran's water and wastewater industry and a showcase for wide-ranging services and equipment, such as pipes, water filtration and sweetening systems, automation solutions and measuring equipment.

Grappling with increasingly dwindling water resources, persistent drought and high levels of consumption, the Iranian government is stepping up efforts to modernize the country's dilapidated water supply network, build new treatment facilities and employ cutting-edge irrigation systems to curb the excessive use of water.

In a statement this month, Mahmoudi said at least 30% of Iran's water and wastewater infrastructure require repairs, a tall order that will more than likely require billions of dollars in investment.

16/10/2017 online at: <https://financialtribune.com/articles/energy/74281/tehran-hosts-water-wastewater-exhibition>

### **US launches \$10 million water project in West Bank**

The US government on Sunday launched a \$10 million project to improve access to wastewater treatment and water for Palestinian farmers in the Jericho area of the West Bank.

A top aide to US President Donald Trump, Jason Greenblatt, was among officials launching the project in the historic city near the Dead Sea.

Greenblatt has been among Trump's aides seeking to restart Israeli-Palestinian negotiations. US officials have spoken of improving the Palestinian economy and infrastructure as part of their efforts.

At Sunday's event, Greenblatt did not comment on White House peace efforts, which have been met with heavy skepticism from many analysts.

He also did not speak about a unity deal signed last week between Palestinian rival factions Fatah and Hamas aimed at ending their decade-long division.

Palestinian Authority President Mahmoud Abbas's Fatah is in power in the West Bank, while Hamas, which Israel considers to be a terrorist organization, runs the Gaza Strip.

The project announced Sunday aims to increase the number of homes connected to the Jericho area's wastewater treatment plant, previously built with Japanese assistance, by about 10,000 residents.

That would leave some 70 percent of Jericho residents connected, according to the US consulate in Jerusalem.



Recycled wastewater would then be available to Palestinian date farmers in the area, it said.

“The US administration and President Trump personally remain committed to a just and lasting peace between Palestinians and Israelis, and a central element of that peace is a thriving economy and real opportunities for Palestinians throughout the West Bank and Gaza,” US Consul General Donald Blome said.

Palestinian Water Authority chairman Mazen Ghunaim said, “This project will have a positive and direct impact on creating jobs and economic growth.”

Dry conditions lead to regular water shortages in the Jericho area, while Palestinians say Israel has allocated much of the water resources in the Jordan Valley, where the city is located, to Israeli settlements.

15/10/2017 online at: <https://www.timesofisrael.com/us-launches-10-million-water-project-in-west-bank/>

### **UNIFIL-Supported water filtration plant benefits locals**

UNIFIL peacekeepers and local officials jointly inaugurated a new water filtration plant, constructed with funding from Spanish peacekeepers, in Meiss Ej Jebel, south-eastern Lebanon, last week.

The plant consists of a water filter system with the capacity of generating 30,000 litres of drinking water every day in addition to the installation of two 4,000-litre tanks. The water system will directly benefit about 5,000 residents of the area with clean drinking water.

In his speech at the opening ceremony, Mayor Abd El Menem Shukair expressed his gratitude to UNIFIL peacekeepers for the support. UNIFIL’s Sector East Civil-Military Cooperation Unit (CIMICU) Captain Angel Sanchez Gonzalez stressed on the good ties that connect the local residents and UNIFIL. He added that the project helps the residents of the town with a better drinking water facility and adequate resources for it.

In close coordination with local authorities, UNIFIL regularly provides assistance to the local population with training programmes, quick impact projects and humanitarian aid to contribute to the betterment of the local communities within UNIFIL’s area of operation in South Lebanon.

11/10/2017 online at: <https://unifil.unmissions.org/unifil-supported-water-filtration-plant-benefits-locals>

### **Water minister, US Congressional aides discuss water sector challenges**

Minister of Water and Irrigation Hazim Al Nasser, on Wednesday, discussed with a delegation of US Congressional aides the water situation in the Kingdom and major challenges facing this key sector due to conflicts in the Middle East region.

Al Nasser voiced the government's appreciation of the support provided by donor countries, mainly the United States, to Jordan that helps it in addressing water challenges resulting from the Syrian refugee crisis.

The minister briefed the delegation on Jordan's plan in the water sector until 2020, by upgrading the water services through the safe supply of water in sufficient quantity and quality to citizens.

The U.S. delegation commended Jordan's role in shouldering burdens imposed on its economy by Syrian refugees, stressing the U.S. desire to boost ties with the Kingdom in various fields, namely, the water-management sector.

11/10/2017 online at:

[http://petra.gov.jo/Public\\_News/Nws\\_NewsDetails.aspx?lang=2&site\\_id=1&NewsID=322137&Type=P](http://petra.gov.jo/Public_News/Nws_NewsDetails.aspx?lang=2&site_id=1&NewsID=322137&Type=P)

### **Home and Dry: Middle East water shortages**

As the global supply of water comes under increased strain, regional instability leaves Jordan stuck between a rock and a hard place

For a country specifically named after a river, water shortages are a cruel irony. Jordan is now recognized as being one of the world's most water-stressed countries, with per capita water availability plummeting from as much as 3,600 cubic meters a year in 1946, to just 135 cubic meters a year today – far below the 500 cubic meters a year level of 'absolute scarcity'.

New research from Stanford University's School of Earth, Energy & Environmental Sciences now finds that ongoing current trends will lead to significantly lower rainfall (by up to 30 per cent) and higher temperatures (an average rise of 4.5°C) by the end of the century. The number and duration of droughts is also expected to double, each one compounding the impact of the last.

While the increasing aridity of Jordan's desert environment through both climate change and changes in land use is a major component in this grim prediction, the massive influx of refugees from over the border in Syria has also been a major drain on the country's limited water supply. Jordan carries the burden of supporting the world's displaced people more than almost any other nation, with figures from the United Nations High Commissioner for Refugees quoting there as being more than 720,000 refugees and asylum seekers housed within its borders at the end of 2016 (although the true figure could be considerably higher), a substantial proportion of the ten million total population.

'Jordan has a history of population increase that is punctuated by periodic large influxes of refugees,' explains Steven Gorelick, Cyrus Fisher Tolman Professor at Stanford and co-author of the study. 'Given its generous policy of accepting refugees, and the history of conflict in the region beyond Jordan's borders, it seems likely that this pattern would continue, even if some of those refugees migrated to other countries.'

As the research reveals, even the prospective end of conflict over the border in Syria would not be entirely welcome news; a revival in Syrian agriculture would likely result in as much as a 75 per cent decline in the flow of the Yarmouk River – the largest tributary to the Jordan River – crossing the border into Jordan.

12/10/2017 online at: <http://geographical.co.uk/people/development/item/2414-home-and-dry-middle-east-water-shortages>

### **West Dammam residents demand solution to water crisis**

Residents of several districts in west Dammam, upset over the recurrent disruption of water supply to their neighborhoods, have demanded urgent solutions to their problem, which they described as highly disturbing.

The residents pointed out that they were facing a real dilemma because of the persisting water shortage. The supply stops almost semi-weekly and the residents› suffering continued, despite they having installed underground water reservoirs, Al-Yaum newspaper reported.

The residents said they informed the Water Directorate in the Eastern Province about the interruptions and water shortage in their homes and asked it to explain the real reasons for the interruption. But they never received any satisfactory answer.

Ahmad Hassan Al-Qarni said: «The residents of Al-Manar and surrounding neighborhoods in west Dammam welcomed the delivery of desalinated water to our homes, which started about two months ago. But soon the supply stopped without warning and they again pumped saltwater to our homes. The water crisis is disturbing and there is no solution in sight.»

He pointed out that the neighboring area of Zahrat Al-Faisaliah received water without any interruption. He called on the competent authorities to help pump desalinated water services to Al-Manar as well as its neighboring districts. Khalid Al-Dosari said the water crisis had become quite frequent in many of the neighborhoods located west of Dammam.

He asked people working in the Eastern Province Water Directorate to find a permanent solution to the supply disruptions in their area and not resort to temporary solutions that do not end their problem. He recounted the difficulties people faced in their homes without water. Some are forced to leave their homes in search of water while others request water tankers.

Al-Dosari pointed to the suffering of his family and his neighbors from the scarcity of water. He said their household expenses increased because they had to buy water tankers quite often, while truck owners tend raise their prices on weekends when demand was high.

Abdulwahab Al-Zahrani stressed the need to establish a water directorate in the west of Dammam. He said the directorate must take into account the urban development and population growth in the western part of the city. He said the desalination plants must increase their output to meet the demand.

Al-Zahrani said citizens pay their water bills regularly hoping to get the best service, but the interruption of supply makes them pay high amounts to water truck operators, who exploit the crisis and increase their prices to excessive levels in the absence of any official monitoring.

He pointed out that even though the supply interruptions persisted, the water meters were running and bills issued as normal. He said he repeatedly tried to contact the Water Directorate but never got any response.

Director General of Water in the Eastern Province Amer Al-Mutairi the desalinated water network was being fed consistently, but in case of low supply, well water would be pumped alternatively to compensate for the shortage.

14/10/2017 online at: <http://saudigazette.com.sa/article/519382/SAUDI-ARABIA/West-Dammam-residents-demand-solution-to-water-crisis>

### **Innovative plantation technique introduced to save water**

The Ministry of Municipality and Environment is experimenting with a new water saving technique — Groasis Waterboxx — for irrigating plants in collaboration with an international company.

Groasis Waterboxx is a watering system — a plastic device that provides a constant source of moisture to young trees by collecting dew and rainfall and slowly distributing the water through a wick that resembles that of an oil lamp.

Using this new technique, the Public Parks Management Department at the Ministry has planted two trees at the backyard of its headquarters, said a report shared on social networking sites of the Ministry.

The Department has hosted experts from the device manufacturing company — Waterboxx. The experts gave details about new technique and how to use it to the agricultural engineers of Public Parks Department. It was agreed with Waterboxx Company to provide more devices for planting trees using it at various municipalities across the country under the supervision of the Department.

Initially within the framework of the cooperation, two trees were planted in the presence of the Mohamad Sada, Deputy Head of the Public Parks Management Department.

The remaining devices are expected to receive soon and will be handed over to the targeted municipalities in coming days, said the Ministry.

This technique helps grow trees in desert climate like GCC countries and save water, said the Ministry. The new technique will enable the department concerned to cover more areas under its plantation drive and increase greenery across the country, the Ministry added.

The Waterboxx plant cocoon reduces the water use in agriculture and trees can be planted with less water, said a report posted on the website of the company. The Waterboxx plant

cocoon uses 90 percent less water and the trees that are planted with it have a survival rate of more than 90 percent.

The Groasis Waterboxx plant cocoon is an alternative for drip irrigation. It is made of polypropylene (plastic) and therefore it can be used many times. The tree needs the box from nine to 12 months to grow. The Groasis is a polypropylene bucket with a lid. It has a vertical tunnel in the middle for two plants. A wick allows water from inside the box to trickle into the ground via capillary action. The device mimics the insulating effect bird feces provide to germinating seeds.

15/10/2017 online at: <https://thepeninsulaqatar.com/article/15/10/2017/Innovative-plantation-technique-introduced-to-save-water>

### **Existing only from the Nile, Egypt fears disaster from a dam**

The only reason Egypt has even existed from ancient times until today is because of the Nile River, which provides a thin, richly fertile stretch of green through the desert.

For the first time, the country fears a potential threat to that lifeline and it seems to have no idea what to do about it.

Ethiopia is finalising construction of the Grand Ethiopian Renaissance Dam, its first major dam on the Blue Nile and then will eventually start filling the giant reservoir behind it to power the largest hydroelectric dam in Africa.

Egypt fears that will cut into its water supply, destroying parts of its precious farmland, hampering its large desert reclamation projects and squeezing its burgeoning population of 93 million people, who already face water shortages.

Dam construction on international rivers often causes disputes over the downstream impact.

But the Nile is different: few nations rely so completely on a single river as much as Egypt does. The Nile provides over 90 percent of Egypt's water supply. Almost the entire population lives cramped in the sliver of the Nile Valley. Around 60 percent of Egypt's Nile water originates in Ethiopia from the Blue Nile, one of two main tributaries.

Egypt barely gets by with the water it does have. Because of its population, it has one of the lowest per capita shares of water in the world, some 660 cubic meters a person. The strain is further worsened by widespread inefficiency and waste. With the population on a path to double in 50 years, shortages are predicted to become severe even sooner, by 2025.

That is despite the fact that Egypt already receives the lion's share of Nile waters: more than 55 billion of the around 88 billion cubic meters of water that flow down the river each year. It is promised that amount under agreements from 1929 and 1959 that other Nile nations say are unfair and ignore the needs of their own large populations.

Complicating the issue, no one has a clear idea what impact Ethiopia's dam will actually have. Addis Ababa says it will not cause significant harm to Egypt or Sudan downstream. Much



depends on management of the flow and how fast Ethiopia fills its reservoir, which can hold 74 billion cubic meters of water. A faster fill means blocking more water at once, while doing it slowly would mean less reduction downstream.

Once the fill is completed, the flow would in theory return to its previous levels, but the fear in Egypt is that the damage from the fill years could be long-lasting or that Ethiopia could build more dams and hold Egypt hostage by continuing to reduce the flow. One study by a Cairo University agriculture professor estimated Egypt would lose a staggering 51 percent of its farmland if the fill is done in three years.

A somewhat slower fill over six years would cost Egypt 17 percent of its cultivated land, the study claimed – still a catastrophic scenario that would hit the food supply and put tens of thousands out of work in a country where a quarter of the work force is employed in agriculture.

Internal government studies estimate that for every reduction of 1 billion cubic meters of water in Egypt's supply, 200,000 acres of farmland will be lost and livelihoods of 1 million people would be affected, given that an average of five people live off each acre, a senior Irrigation Ministry official said. He spoke on condition of anonymity because he was not authorised to discuss the figures.

Other experts say the impact will be far smaller, even minimal. They say Egypt could suffer no damage at all if it and Ethiopia work together and exchange information during the filling of the reservoir, adjusting the rate to ensure that Egypt's own massive reservoir on the Nile, Lake Nasser, stays full enough to meet Egypt's needs during the years of the fill. Unfortunately, that isn't happening between the two countries, whose ties have often been deeply strained.

"To my knowledge, this situation is unique, particularly at this scale," said Kevin Wheeler at the Oxford University's Environmental Change Institute. "I just can't think of another case that has two large reservoirs in series without a plan on how to operate them together."

Construction on the dam is around 60 percent complete and is likely to be finished this year or early next. Ethiopia has given little information on when it will start the fill or at what rate.

It is pushing ahead with construction without waiting for an independent study on the impact that it, Egypt and Sudan agreed to under a 2015 Declaration of Principles agreement.

"We have taken into account (the dam's) probable effects on countries like Egypt and Sudan," Ethiopia's water, irrigation and electricity minister, Sileshi Bekele, told reporters in Addis Ababa. He added that plans for the filling process could be adjusted but did not elaborate.

A joint Ethiopian-Egyptian-Sudanese committee has met 15 times over the past two years, most recently this month, trying to implement the Declaration of Principles. Under that deal, they committed to abide by the impact study and agree on a plan for filling the reservoir and operating the dam.

But though the deadline to complete it has passed, the study has hardly begun, held up by differences over information sharing and transparency. In public, Egyptian officials have said both governments are cooperating. But the frustration is starting to show.

In June, Egyptian Foreign Minister Sameh Shukri spoke of "difficult talks" and complained of delays in the impact study. He warned that unless Ethiopia addresses Egyptian concerns, Egypt will search for an alternative path, though he did not elaborate.

The irrigation official said that Egypt is trying to build international pressure on Ethiopia. A high-ranking government official acknowledged there's little Egypt can do.

"We can't stop it and in all cases, it will be harmful to Egypt," he said.

A senior diplomat involved in the negotiations only shrugged. "We can only wait and see," he muttered.

Both spoke on condition of anonymity because the talks are still ongoing.

Egyptian leaders in the past have rumbled about military action to stop any dam. Recently, Ethiopia accused Egypt of supporting rebels caught trying to sabotage the dam and there are also accusations that Egypt is setting up a military base in Eritrea to carry out an attack – all claims denied by both Egypt and Eritrea. A military option seems less likely after the 2015 accord in which Egypt agreed to cooperation. International law also provides little recourse.

International charters spell out broad principles on managing rivers, saying waters should be shared in an equitable way and one country's projects on a river must not cause "significant harm" to another. But it is largely left to the riparian countries – those along the river – to work out the details. The 2015 accord committed Egypt to resolve differences in negotiations and while it can seek outside mediation, all parties would have to consent.

Originating in Ethiopia, the Blue Nile flows into Sudan, where it joins with the White Nile, whose source is Lake Victoria in east Africa. From there it flows north through Egypt to the Mediterranean. For Ethiopia, the \$5 billion dam is the realisation of a long-delayed dream. Ethiopia's infrastructure is among the least developed in the world, leaving the vast majority of its 95 million people without access to electricity.

The dam's hydroelectric plant is to have a capacity to generate over 6,400 Megawatts, a massive boost to the country's current production of 4,000 Megawatts. The longer it takes to fill the reservoir, the longer Ethiopia has to wait for the benefits, meaning lost growth.

"If everybody is working together, if there is trust, it is possible to have win-win," said Kenneth M. Strzepek, professor of water resources engineering and economics at the University of Colorado at Boulder. He believes that even in the worst case scenario, damage to Egypt's economy will not be huge.

"But you will hurt people," he said. "If you reduce the flow, you hurt the farmers."

Over 80 percent of Egypt's water goes to agriculture. Any blow could resonate hard in Egypt. The country is already undertaking a painful reform program of austerity measures that have hiked inflation in a bid to rebuild an economy deeply damaged by years of turmoil.

At the same time, Egypt uses its water with chronic inefficiency. Nearly a third of the around 9 billion cubic meters of drinking water is wasted each year because of old, dilapidated pipes and distribution networks, according to the official statistics agency. Farmers irrigate their fields by flooding, increasing water loss. The government has been reluctant to incorporate more efficient sprinkler or irrigation systems into the national water plan because of the cost.

Among Egyptians, there are bitter accusations that Ethiopia is acting unilaterally.

"Ethiopia wants full control over the Nile. It doesn't want to abide by any deals," said Hani Raslan, a Cairo-based expert in African affairs. "Egypt is fed up," he said. "When the fill-in starts, there will be grave dangers."

But some critics say Egypt only has itself to blame because of its own high-handedness in the past.

Egypt and Sudan, which also gets a large share of the Nile waters under past accords, traditionally rejected pressure by other nations to get a fairer distribution of the water.

In 1999, the countries established the Nile Basin Initiative as a forum on the river's use. Egypt and Sudan walked out of the talks, demanding their "historic rights" be recognised. The boycott backfired. The other nations went ahead, creating their own Cooperative Framework Agreement in 2010 and throwing support behind Ethiopia's dam. Sudan and Egypt remained hold-outs.

After coming to office in 2014, Egyptian President Abdul Fattah al-Sisi took a new approach, visiting Sudan, Ethiopia and other upstream nations and talking of diplomatic solutions. Egypt then signed the 2015 Declaration of Principles. For the first time, it made no mention of its past water shares. Critics said it had gone too far in the other direction and had surrendered its rights.

Salman Salman, a Sudanese water expert, said Egypt ignored past opportunities to work together with Ethiopia. "There is this arrogance (in Egypt) and the feeling that this is our river and no one can touch it," he said. Now Egypt is isolated and Ethiopia is dragging its feet over cooperation – just as Egypt did in the past. "Egypt is no longer the dominant force along the Nile," Salman said. "Ethiopia is replacing it."

12/10/2017 online at: <https://en.qantara.de/content/existing-only-from-the-nile-egypt-fears-disaster-from-a-dam>

### **Kampala: Nile nations meeting over water resource**

Ministers of member states in charge of Water Affairs from the Nile Basin Initiative (NBI) are currently meeting in the Ugandan capital Kampala to consider approving key reports and plans for sharing the water's of Africa's longest river. The one-day meeting is meant to discuss

a ten-year strategy on fostering cooperation around the judicious sharing of water from the River Nile.

The utilization of water from the River Nile for power generation still remains a highly contentious issue among members.

According to a statement by NBI released on Thursday, the strategy translates the shared vision and objective into a ten-year strategy which is intended to provide policy direction on the issue for the next decade.

Countries such as Sudan and Egypt are opposed to the construction of mega hydro-electric dams on the river.

They are fearful that as downstream countries a dam such as the Grand Ethiopian Renaissance Dam would reduce their natural share of water from the Nile, a fear dismissed by Addis Ababa as unfounded.

The Kampala meeting will also witness the handover of the chairmanship of the Nile Council of Ministers (Nile-COM) from Sam Cheptoris, Uganda's Minister of Water and Environment.

This is in line keeping with the NBI tradition of annually rotating the position of chairperson of the council and the Nile Technical Advisory Committee respectively among the 11 member states.

Member countries are Uganda, Rwanda, Tanzania, Burundi, Ethiopia, Egypt, South Sudan, Sudan, Eritrea and the Democratic Republic of Congo.

Some of these nations are heavily dependent on the Nile waters for survival.

12/10/2017 online at: <https://www.journalducameroun.com/en/kampala-nile-nations-meeting-over-water-resource/>

### **Egypt's irrigation minister heads to Ethiopia for Renaissance Dam visit**

Egyptian Irrigation Minister Mohamed Abdel-Ati flew to the Ethiopian capital Addis Ababa on Sunday for a visit to the Grand Ethiopian Renaissance Dam (GERD) and a tripartite ministerial meeting on technical studies related to the dam.

According to Al-Ahram Arabic news website, Abdel-Ati will take part in the meeting with a view to following up on technical studies related to the possible impact of the dam on downstream countries.

The minister will also join a trip to the GERD site, organized by the Ethiopian government, where he will observe construction work and explore technical details related to the work of the tripartite technical committee with Ethiopia and Sudan.

The Addis Ababa meeting has been much-anticipated, especially after Egypt voiced concerns in September about the inactivity of the tripartite technical committee assigned to study the effects of the dam due to a delay in meetings.



The last meeting by technical experts was held in Sudan in mid-September, where experts discussed a preliminary report about the technical methodology of the studies planned by French firms BRL and Artelia.

BRL said last year that the studies were scheduled to start in late 2016 and should take 11 months.

The 6,000-megawatt dam, which is slated for completion this year, is situated close to Ethiopia's border with Sudan. Ethiopia hopes it will be able to export electricity generated by the dam.

Egypt, however, has expressed concerns that the dam might reduce its share of Nile water.

Ethiopia maintains that the dam will not have any negative impact on Egypt or Sudan.

16/10/2017 online at: <http://english.ahram.org.eg/NewsContent/1/64/278872/Egypt/Politics-/Egypts-irrigation-minister-heads-to-Ethiopia-for-R.aspx>

### **Cabinet approves MoU with Morocco on water resources**

The Union Cabinet today approved signing of a memorandum of understanding (MoU) between India and Morocco for cooperation in the field of water resources, a statement said.

The MoU aims to enhance cooperation in the field of water resources development and management within the framework of their expertise and their respective legislations, it said.

The domain of bilateral cooperation under this MoU includes conception, realisation and maintenance of the hydraulic infrastructure, big dams and water transfer projects, flood and drought management and sustainable development and management of ground water resources including recharge augmentation.

It also includes visits and missions of experts, exchange of information on programmes, publications, expertise and results of research in the field of water resources.

"The MoU also provides for setting up of a joint working group consisting of equal members from both sides to monitor the activities to be carried out in fulfilment of the MoU," the statement said.

11/10/2017 online at: <http://indiatoday.intoday.in/story/cabinet-approves-mou-with-morocco-on-water-resources/1/1066761.html>

### **'Thirsty protests' hit Morocco over water shortages**

Residents angered by persistent water shortages in southern Morocco have taken to the streets in a series of "thirsty protests" that has grabbed the attention of the country's king.

Since the start of the summer, inhabitants in the region of desert town Zagora have been left parched and furious as water supplies are cut off for hours - or even days - at a time.

"The situation is critical. It means daily suffering for the people in this region," Jamal Akchbabe, head of an environmental group in the town, told AFP by phone.

"Families are going for days without tap water, while others don't have any for several hours each day. And this water is undrinkable."

In a bid to express their discontent over the crisis, residents began organising regular peaceful protests in the town of some 30,000, around 700 kilometres (430 miles) from the capital Rabat.

At first they were tolerated by the authorities, but then on September 24 security forces stepped in to break up a rally and arrested seven people for taking part in an "unauthorised demonstration", local rights activist Atmane Rizkou said.

The situation only got worse when residents tried again to march on October 8, activists said.

The attempt descended into violence as police boxed in the town and used force to break up the gathering and detained 21 people, said Akchbabe.

"The protesters were subjected to repression, insults and humiliation," he said.

"The town is in a state of siege."

- Watermelons to blame? -

Residents put the shortages roiling this arid region down to the overuse of sparse resources for agriculture, especially the cultivation of watermelons.

Akchbabe says locals accuse the ministry of agriculture of allowing this water-intensive production "which provides profit for big farmers to the detriment of the inhabitants".

University professor Abdelmalek Ihazrir, who has written about Morocco's water policy, says that rare rains have led to the overexploitation of ground water across the country.

"The rains are scarce and strong heatwaves lead to evaporation from water at the source, above all in the south," he told AFP.

"We need to develop a new, more rational policy and alternative measures."

Officials appear to have heeded the anger -- but so far their response has entailed mainly just words.

At the end of September Prime Minister Saad-Eddine El Othmani promised "emergency measures" after the national water and power authorities admitted there were "constraints" hindering the system.

A few days later the country's powerful monarch Mohammed VI called for the establishment of "a commission that will look at the issue with a view to finding an adequate solution in the coming months".

- Sensitive timing -

The protests come at a sensitive time for Morocco as the authorities are desperate to avoid a repeat of social unrest that has seen months of demonstrations rock the long-marginalised Rif region in the north.

But the water issues roiling the country are common across North Africa and the Middle East where access to the precious resource has long been a problem.

The World Bank estimates that over 60 percent of people there live in areas that suffer from a scarcity of water, compared to a worldwide figure of just 35 percent.

In neighbouring Algeria to the west, water shortages in 2000 and 2013 erupted into violence clashes.

Meanwhile in Tunisia, where residents are especially reliant on winter rainfall to fill up dams, droughts caused supplies to be cut in summer 2016 for periods that sometimes lasted weeks at a time.

15/10/2017 online at: <https://www.enca.com/africa/thirsty-protests-hit-morocco-over-water-shortages>

### **WWF urges need to promote water efficiency in Pakistan**

Pakistan is water-stressed country and is nearing the threshold of water scarcity, said World Wide Fund-Pakistan Director General Hammad Naqi Khan.

Access to safe drinking water in rural and urban areas is declining and provision of potable water is a key issue that people face, he pointed out while speaking at WWF-Pakistan's media briefing session on Tuesday.

He also said that the implementation of laws pertaining to industrial effluents generated from the textile and leather industries is weak. Furthermore, industrial waste from these industries contains heavy metals such as copper, chromium, and nickel.

He was of the view that safe drinking water should be made available to the population and industries need to ensure proper disposal of solid and liquid waste.

Industries should also ensure that the labour force working in their facilities are not exposed to harmful chemicals, he added.

The media briefing session conducted by World Wide Fund for Nature (WWF-Pakistan) under a project titled 'International Labour and Environmental Standards Application in Pakistan's Small and Medium Enterprises'.

According to a press release issued on Tuesday, the six-year project, funded by the European Union, is jointly being implemented by the International Labour Organization (ILO) in Lahore, Karachi, Sialkot and Faisalabad.

The project aims to implement international labour and environmental standards in Pakistan in order to improve the capacity of the public sector to implement multilateral environmental agreements (MEAs) and national environmental laws and standards in Pakistan.

The project involves building the capacity of the textile and leather sector to adopt Smart Environmental Management Practices (SEMPs) in order to efficiently use water and energy resources and reduce the use of hazardous chemicals by 15 to 20 percent.

Further the project aims at contributing to improvement in industry based laws so that Pakistan's export market can compete with international labor and environmental standards.

10/10/2017 online at: <https://www.geo.tv/latest/162071-wwf-urges-need-to-promote-water-efficiency-in-pakistan>

### **Pakistan needs to control water demand-supply gap**

The State Bank of Pakistan (SBP) has warned that the widening gap between water demand and supply has now become a major social and economic concern for Pakistan that requires a comprehensive national policy.

“Any delay in reforms would only compound the concerns as the water deficit would expand on account of growing demand (stemming from population growth, urbanisation and economic development) and a decline in available supplies (owing to pollution and climate change),” the central bank said in a special section of its Annual Report on the State of Economy for 2016-17.

The focus of reforms should be on improving efficiency in water consumption and management and building the capacity of relevant regulatory institutions.

People are generally sensitive to forced change in their usage rights, the report noted, but it is necessary to design a reform agenda that is acceptable to all stakeholders (provinces and the federal government).

The report said water is a crucial resource for the livelihood of people and sustained development of any economy. However, it has more significance for Pakistan because its economy is agrarian in nature and depends on a single source (the Indus Basin) to meet most of its water needs.

Water crisis may soon hit major Pakistan cities

Therefore, water availability and its efficient utilisation lie at the heart of any strategy aimed at ensuring food security and achieving a sustained long-term economic growth.

Pakistan is going to face a high level of water stress by 2020. By 2030, the ranking will worsen further to extremely high level, thus pushing Pakistan to the list of top 33 countries under extreme water stress, according to the World Resource Institute.



More importantly, the stress is going to increase further due to growing demand, mainly coming from rising population, rapid urbanisation, adverse impact of climate change and the continuing degradation of water quality.

This pressure will push the country very close to the threshold of absolute water scarcity.

#### Limited storage

The current storage capacity is inadequate as the three major water reservoirs in Pakistan, ie Mangla (1967), Tarbela (1978) and Chashma (1971), have a total designed capacity of 15.75 million acre feet (MAF), which has been reduced to 13.1 MAF due to sedimentation.

These reservoirs can store water equivalent to 30 days of consumption, whereas the standard minimum requirement is 120 days. Most of the advanced countries have capacities of one to two years.

Furthermore, Pakistan's live storage capacity is 150 cubic metres per person, with Ethiopia being the only country that has a lower per person live storage. India's live storage capacity is 220 cubic metres per person.

The storage capacity is also low in terms of available water as the country's reservoirs can store less than 10% of the annual river average flows against the standard of 40%.

#### Outdated distribution system

The inefficient distribution system (also known as warabandi) has resulted in low water productivity in Pakistan.

For instance, over 90% of total annual water available in the country goes to agriculture. Furthermore, the supply of water is linked to the canal command area and farmers are required to consume water even when it is not required.

Thus, the output produced against a unit of water remains extremely low. This unreliable and rigid water distribution system also explains the low productivity of water (defined as the average crop product per unit of water consumed).

According to a study, water productivity for cereal crops in Pakistan is almost one-third of that in India and one-sixth of the productivity realized in China, the report said.

14/10/2017 online at: <https://tribune.com.pk/story/1530852/pakistan-needs-control-water-demand-supply-gap/>

#### **Afghan Villagers Unite to Preserve Access to Water**

Every year in the middle of March, villagers in Qalach-e-Abad village come together to clean the Nawai Pathaw canal to ensure they have enough water to irrigate their farms for the rest of the year. This what they have done this year—cleaning the canal to make sure all of them have access to enough water for irrigation on their farms for the rest of the year.

Haji Abdul Wali, 51, head of the Community Development Council (CDC) for Qulchabad village, is monitoring the progress and supervising people. “As a matter of routine, the canal needs to be cleaned every year on account of mud and silt that accumulate and need to be removed for the water to flow smoothly,” he explains.

Today, over 100 villagers are working together to clean the Nawai Pathaw irrigation canal. Haji Wali says it will take 20 days to clean the 10.5-kilometer long canal, which provides irrigation water to six villages in Dand district in Kandahar Province. It was common for villagers to spend 40 days or more to clean and fix all the leakages in the canal. Despite this annual restoration, in most years, villagers ran into water shortages due to recurring leaks.

“In the past, a lot of water was wasted but this is not so now,” says Haji Wali. The canal, which was originally constructed nearly half a century ago, was rehabilitated by the Irrigation Restoration and Development Project (IRDP) in June 2014. The rehabilitation work, which took a year, included building sluice gates, a protection wall, flumes, and culverts along the length of the canal. As a result, agricultural output as well as productivity have improved. The canal now irrigates 2,748 hectares of farmlands compared to 2,320 hectares previously.

“In the past, villagers were not keen on spending more money on restoring the canal,” says Haji Wali as he points to channels built by money contributed by the farmers. “Since IRDP invested in this project and people witnessed a significant increase in their harvests, they were happy to invest personally in the canal too, financially as well as physically,” he says.

IRDP aims to holistically increase agricultural productivity and production in target areas. It operates under the umbrella of the Ministry of Energy and Water (MEW) in six regional offices: Kabul, Herat, Jalalabad, Kandahar, Kunduz, and Mazar-e-Sharif. It supports the rehabilitation of irrigation systems, serving some 300,000 hectares of land across the country. So far, a total of 98 irrigation schemes has been rehabilitated, covering 100,000 hectares of irrigation command area and benefiting over 63,000 farmers.

The project is supported by the International Development Association (IDA), the World Bank Group’s fund for the poorest countries, and the Afghanistan Reconstruction Trust Fund (ARTF), in partnership with the Government of Afghanistan.

#### Sense of Common Purpose

IRDP started its work in the Kandahar region (covering the provinces of Helmand, Zabul, Kandahar, Nimroz, and Oruzgan) in 2011. To date, it has completed the technical work on 29 projects, 20 of which have been completed. “Overall, IRDP’s work has enabled farmers to earn more,” says engineer Samiullah Momand, head of IRDP for Kandahar region. “For example, in Nimroz province, now that IRDP has solved some water-related problems, the harvest is much better than in the past, and farmers are even exporting their products to our neighboring country, Iran.”

Ahmadullah, 28, a resident of Nasiran village, is one of the thousands who have benefited from the rehabilitated canal. He is now able to cultivate all 10 jeribs (2 hectares) of his

farmland instead of only 6 jeribs previously. “Farming is easier,” he says. “As we cultivate more, of course it will help us to earn more.”

IRDP projects have not just increased agricultural production and productivity, but also united the locals with a sense of common purpose. In the past, water shortages translated into frequent altercations, especially in the farming community. But with enough water now and a sense of personal ownership of the development changes that are happening around them, villagers are working better together.

“IRDP’s work has brought prosperity to Kandahar region, it is obvious to anyone who visits the region,” says Samiullah. “But the fact that communities feel more vested and united, that, indeed, is the true power of development.”

11/10/2017 online at: <http://www.worldbank.org/en/news/feature/2017/10/11/development-projects-lead-to-community-investment-in-kandahar-region>

### **Below 5pc of Zaranj residents consume clean water**

The scarcity of potable water has turned into a serious challenge for residents of the capital of southwestern Nimroz province, where less than five percent of people use healthy water.

A new survey by the Central Statics Organization (SCO) shows 85 percent of water contains E. coli bacteria in Kabul, Balkh, Kapisa, Samangan, Badakhshan, Daikundi, Nangarhar, Khost and Herat provinces.

According to the Nimroz water supply department, only five percent of people in Zaranj city have access to paid clean water that is also not tested to be fully healthy by the organs concerned.

According to Pajhwok Afghan News, residents of Nimroz, particularly districts, have been struggling with an acute shortage of potable water and obliged to consume unhealthy water.

### **Lack of potable water a challenge in Nimroz**

Mualvi Gul Ahmad Ahmadi, a provincial council member, said people’s access to water increased with enough rainfalls in Helmand and Uruzgan provinces and the increase in water level in the Helmand River that flows into Kang district of Nimroz. “Otherwise we face lack of irrigation and potable water.”

“The water from Helmand River usually flows on temporary basis, it flows for three or four months a year, that’s why the lack of water in Nimroz has become serious,” he said.

He said a clean drinking water project had been extended from Qala-i-Fath area of Chahar Burjak district to Zaranj but people could not benefit from the scheme due to the absence of meters.

He asked the officials concerned to pay attention to people’s problems otherwise they would start agitating.

Abdulhai Rahguzin, who owns a hop in Zaranj, told Pajhwok Afghan News that people across Nimroz including the provincial capital had no access to clean drinking water and in some areas people travel long distances to fetch water home.

“The water which private companies distribute to public is not fully safe and it also causes diseases, but people buy it because they have no other option,” he said.

Malalai Ahmadi, another resident of Nimroz, also said the lack of potable water was a challenge in the province. She said residents of the province had long been consuming unsafe water.

“Some people buy clean water but what about the poor lot who cannot afford it,” she asked, and grumbled despite large amount of money coming in foreign aid to Afghanistan over the past more than a decade, the Afghans continued to drink unhygienic water.

She hoped the officials concerned would take action and provide clean water to the public as soon as possible.

Mohammad Younus Haqbin, a civil society activist, said water taps had been installed in people’s homes but its distribution needed installation of meters.

Unsafe water threatens Nimroz residents’ health

Salahuddin Ayubi, another civil society activist in Nimroz, also said the people of Nimroz had long been suffering from the lack of safe water.

“Around 50 to 60 children fall ill and are hospitalized on daily basis after consuming unclean water, we want clean water for public consumption and the problem should be resolved,” he said.

Nasir Ahmad, a resident of Zaranj city, said his four-year child infected diarrhea after drinking unclean water and his treatment cost him 2,000 afghanis.

“We purchase clean water, but its taste changes ... sometimes bitter, sometimes salty and sometimes muddy. The company does not provide clean water always,” he said.

Gul Bahadur Shah, a doctor in Zaranj Civil Hospital, also said usage of unsafe water created health related problems in people.

He said most of the patients coming to the hospital were affected by water-borne diseases.

“Most of residents of Nimroz cannot afford to buy clean water everyday so they use unhealthy water that causes diseases,” he said.

Major water supply network in Zaranj

The water supply network project in Zaranj was completed after several years of work but residents of the city are yet to benefit from the project for unknown reasons.



Eng. Farid Azim, provincial rural rehabilitation and development director, said that the water supply project after its completion was handed over to the water supply department and his office had no role in that.

“The Zaranj water supply project was implemented in two phases at a cost of \$22,000, the project was completed and inaugurated in June this year,” he said.

He said the Afghan government-funded project has the capacity to supply 243 liters of water in one second and can resolve the problem of Zaranj people.

However, Eng. Shah Wali, acting head of Nimroz water supply department, said the water would not reach the people until they installed meters in their houses.

He said the water supply network would facilitate 27,000 families in Zaranj and each family should install meter to use the service. Currently only 530 families have so far installed the meters, he added.

Wali said the water would flow to people’s houses in a week if they installed the meter and paid the service’s fee. He said the project could supply safe water to 80 to 90 percent of Zaranj people.

On the other hand, an official of Nimroz water supply department said they faced shortage of personnel and the only 10 personnel in their department could not supply water to 27,000 families.

Meanwhile, Mohammad Samay, the governor of Nimroz, told Pajhwok that the water supply service was a shared responsibility of the public and the government.

“It is the government’s responsibility to supply water, but installation of meters and payment of bills is the responsibility of consumers,” he said.

Abdul Ghani, a resident of Zaranj, said he had installed the meter and cleared his payments and was now waiting for the water to flow into his house.

He said the water supplied by the government was cleaner and healthier than the water distributed by private companies in tankers.

But another resident of the city, Omaid, said he did not install the meter because he believed the water supply network would not last long.

Nimroz is one of sandy provinces of the country and the wells’ water in its capital is salty. The Helmand River flows into Zaranj for a short period.

16/10/2017 online at: <https://www.pajhwok.com/en/2017/10/16/below-5pc-zaranj-residents-consume-clean-water>