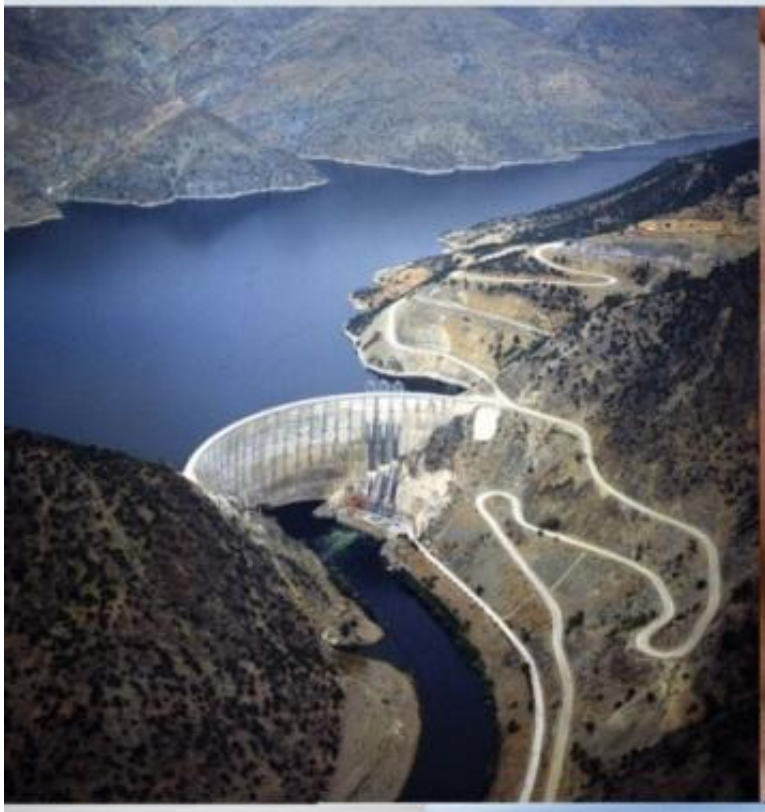


ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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





ORSAM WATER BULLETIN

05 December 2017 - 18 December 2017

Iran says Caspian Sea Legal Regime nears agreement by littoral states

Iranian Foreign Minister Mohammad Javad Zarif said Tuesday that the Caspian Sea littoral countries have reached a consensus on the bulk of the sea's long-awaited legal regime, Tasnim news agency reported.

The five countries neighboring the Caspian Sea share the view that the sea's issues should be addressed only by the littoral states and have agreed to ban all foreign military forces from entering the sea, Zarif was quoted as saying.

He stressed the need for "fairness" and "mutual respect" in demarcation of maritime boundaries in the Caspian Sea, saying that disagreements on demarcation of the zones could be resolved through "closer interaction and mutual flexibility by all parties."

Iran is ready to let other Caspian states have access to international waters when it comes to the transportation of goods or oil and gas transfer, he added.

Zarif also said that the five littoral states could establish a joint investment fund, coordinate customs affairs and unify the tariffs, found joint transportation companies, and move to remove visa requirements for trips among them.

Heading a delegation of political and legal experts, Zarif is in Russia's Moscow for the ministerial meeting, to prepare a summit of Caspian leaders, due to be held in Astana of Kazakhstan.

The ministerial meeting focused on the draft document of the Convention on the Legal Status of the Caspian Sea.

The Caspian Sea Convention will determine the territorial rights of the littoral states as well as other matters related to the world's largest landlocked body of water.

06/12/2017 online at: http://news.xinhuanet.com/english/2017-12/06/c_136803186.htm

UN-Habitat Signs MoU on Tehran Water Management

T he United Nations Habitat Office in Tehran signed a memorandum of understanding with Tehran Province Water and Wastewater Company on Monday on expanding collaboration in water management.

“The MoU is aimed at setting a framework for holding training courses on water and wastewater management, focusing on sustainable development of green urban spaces, managing water resources, expanding water supply and sanitation infrastructure and raising water quality and consumption efficiency," Mohammad Parvaresh, TPWWC’s managing director, was quoted as saying by the Energy Ministry’s news portal on the sidelines of the signing ceremony.

Drawing attention to the notion of sustainable development, Parvaresh noted that scarcity of water resources poses a pressing challenge.

Iran is located in one of the world's most water-stressed regions. In the face of persistently low precipitation in the past 15 years, experts have called for greater focus on collecting, treating and reusing water for drinking and farming.

Data show an average rainfall of 241 millimeters in the previous Iranian water year that ended in September. Though better than two water years ago, precipitation in the previous water year declined 2% compared to the long-term average.

“While Tehran Province has only 1.1% of Iran’s area, it houses 20% and 45% of its population and industries, respectively, and it is not in the vicinity of any river,” he added, stressing that the densely-populated province relies on water resources from outside Tehran, because of which sustainable water management is necessary.

Siamak Moqaddam, the head of UN-Habitat Tehran Office, also said it has formed a national committee in Iran, which is made up of representatives from several ministries and organizations, hoping that TPWWC, as a member of the committee, would increase collaboration.

“We have started formulating national urban policies in cooperation with the Ministry of Roads and Urban Development, in which the TPWWC should also be engaged,” he said. Established in 2007, the UN-Habitat aims to help policymakers and local communities come to grips with the human settlements and urban issues, and find workable, lasting solutions.

11/12/2017 online at: https://financialtribune.com/articles/energy/77740/un-habitat-signs-mou-on-tehran-water-management

Iran’s Water Crisis Passes Tipping Point

A top Iranian environment official has lambasted the country’s Sixth Development Plan as detrimental to soil and water resources.

“Such plans are forced on the government without taking soil and water capacities into account,” Issa Kalantari, head of the Iranian Environment Department, said on December 11.

At a ceremony celebrating World Soil Day, he said Iran’s limited water and soil resources were endangering its ability to feed the country’s population of more than 80 million.

“Since our level of consumption has been higher than our limited resources, we are going to face soil bankruptcy as we have already experienced in water-related fields,” he said.

Excessive erosion and degrading have seriously endangered Iran’s soil resources, experts maintain.

Describing the country’s laws, including the overarching Sixth Development Plan, as unrealistic in regard to the environment, Kalantari said, “We are using our resources in excess without thinking about how to sustain them.”

The top laws of the land have forced governments to excessively build dams and consume surface and underground water resources. Meanwhile, many parts of Iran have faced unprecedented periods of drought.

According to official statistics, 750,000 wells are operational in Iran, 330,000 of which are illegal.

“Stop repeating the shibboleth and saying our country is great,” Kalantari has said against those who promote population growth, noting, “Our resources are limited. If we are going to have a larger population, we should do it in tandem with our imports.”

Supreme Leader Ayatollah Ali Khamenei is the main proponent of population growth. In 2014, he issued an edict obliging the heads of Iran’s ruling system to reduce the legal age for marriage and encourage families to have more children.

Kalantari had previously echoed other experts’ warnings, asserting, “Iran’s 8,000-year-old civilization will be destroyed if the level of our water consumption is not reduced.”

The former agriculture minister also cautioned that Iran’s soil resources have reached a tipping point requiring urgent measures.

“When the Iran-Iraq War started, no one considered the consequences of the armed conflict and its bombardments on the unemployment rate, because there was no time to do so. We were facing a much greater problem: the war itself,” Kalantari said in an interview with the government’s official news agency, IRNA. “Today, we’re in a similar situation. We must not consider the unemployment rate among farmers at this point in time, because we’re facing a much more critical problem.”

He further warned that if Iran does not change its approach to water use, the result would be mass migration.

“If water consumption for agriculture remains at this level, in less than 25 years Iran’s eastern and southern areas will be completely deserted, and 50 million people will have to emigrate,” he added.

Blaming the agricultural sector for excessively using Iran’s water resources, Kalantari said, “90 percent to 95 percent of water consumed in the agricultural sector must be reduced; otherwise, the problem will never be solved.”

13/12/2017 online at: https://en.radiofarda.com/a/iran-water-crisis-serious-soil-erosion/28914002.html

Iran Cancels 50 Planned Dams

Iranian news is reporting that the country's Ministry of Energy has canceled 50 planned dams, due to a lack of rainfall.

According to Radio Farda, the head of Iran's meteorological organization has reported that rainfall has dropped to just 40% of what is normal in 17 provinces in the last two months. Even drier conditions are threatening five Iranian provinces: Qom, South Khorasan, Esfahan, Central and Yazd.

Scientists say that climate change has already led to a 10% drop in rainfall in the country in the last 20 years, and a 1.5 degree increase in average temperatures.

According to Radio Farda, the Ministry of Energy announced that it has made the decision to halt the dam projects, due to an increase in the evaporation of water resources from climate change to 25 billion cubic meters and a 20% decrease in the country's floods.

A report by the Iran Student News Agency (ISNA) reported earlier this year that climate change is also driving air pollution and the drying of wetlands throughout the country.

13/12/2017 online at: https://www.internationalrivers.org/blogs/433/iran-cancels-50-planned-dams

Tehran Hosts Confab on Water Management

The First National Conference on Water Loss and Consumption Management kicked off today at Tehran's Abbaspour School of Engineering to tackle Iran's chronic water problem.

The two-day event aims to provide an opportunity for water experts to discuss water wastage and management as well as the most recent scientific achievements in water engineering so as to find a way out of the trouble, IRNA reported.

During a recent press conference, Shahin Pakrouh, a deputy at National Water and Wastewater Engineering Company, said 25% of water consumption per capita is wasted, of which 13% is "real" and 12% is "apparent".

Real wastage is the amount of water discharged from the water distribution system and the apparent wastage is the amount consumed but not measured due to a number of reasons, including deficiency of water meters.

"Based on the schemes suggested by the company, real water wastage should decrease by 0.5% to 1% each year for which an annual budget of 15 trillion rials ($359 million) is required," he said.

Experts believe Iran should make preparations for a water-scarce future.

"Anyhow, consumption management is a key strategy to supply water under the present critical conditions," the company official said.

Official data suggest water consumption in the agricultural and industrial sectors has a mere 30% efficiency, which pales in comparison to the global average of 75%.

Reportedly, the rate of precipitation in Iran is about a third of the global average.

According to Pakrouh, the average rainfall over the past few years was 250 mm that decreased further to 230 mm in the last water year (ended Sept. 24, 2016).

This is while evaporation rate is above the global norm.

To make matters worse, "each Iranian consumes approximately 160 liters of water daily", he said.

To at least partially address the issue, the company has proposed five solutions, including decreasing water waste, holding social and cultural training courses, supplying efficient water equipment, modifying water subsidies and passing effective water consumption laws and regulations.

"The solutions are to be comprehensively discussed by the experts and authorities during the conference," Pakrouh said.

Co-organized by Iran Water and Wastewater Association, Shahid Beheshti University and Water and Wastewater Company of Iran, three round-tables will be held at the conference focusing on "practical methods to manage water consumption", "solutions to decrease real water wastage" and "modification of measurement techniques and increasing the accuracy of urban water meters".

Reportedly, 200 articles have been submitted to the event's secretariat for presentation, while 11 workshops and an exhibition are to be held on the sidelines of the event.

Twenty-four companies active in water consumption management are participating in the conference.

The conference will wrap up on Dec. 20.

18/12/2017 online at: https://financialtribune.com/articles/environment/78146/tehran-hosts-confab-on-water-management

Shrinking Sea of Galilee sees rising salinity, endangering water quality

The Sea of Galilee's ever-dropping water level is causing rising salinity in the reservoir and harming the quality of the water, Hadashot news reported Tuesday.

Israel's Water Authority is hard at work on projects to pump out salt water from the lake, in order to maintain its potability. The Authority says it is currently extracting about 17,000 tons of salt each year.

Hadashot reported that many northern streams that feed the Sea of Galilee have dried up due to the ongoing drought.

In October the Water Authority warned that the Sea of Galilee was at a dangerously low level and expected to reach "the lowest level ever recorded." Northern Israel has a deficit of 2.5 billion cubic liters of water, compared to non-drought years, the equivalent of a million

Olympic-size swimming pools. This is water that normally flows through Israel's streams and underground water tables toward the Sea of Galilee and other water sources.

The north must receive at least 85 percent of the winter average rainfall this winter or the country can expect major streams and water sources to dry up, including the Banias River in the Golan Heights, something that has not occurred since meteorological record-keeping began in the region more than 100 years ago, said Water Authority spokesman Uri Schor. Last year, northern Israel received just 10% of the average winter rain.

Schor is in the midst of designing a large public awareness campaign for early 2018 to encourage people to save water in their homes.

Doron Markel, the director of the Sea of Galilee division at the Water Authority, has warned that the repeated droughts in recent years are indicative of "a permanent situation of climate change," and the country will need to adjust accordingly.

13/12/2017 online at: https://www.timesofisrael.com/shrinking-sea-of-galilee-sees-rising-salinity-endangering-water-quality/

Lebanon's new water project will be operational in February: Minister

Energy and Water Minister Cesar Abi Khalil said Wednesday that the Greater Beirut Water Supply Augmentation Project would be at least partially operational by early 2018. The project will ideally be functional in the Chouf town of Joun in February, Abi Khalil said, during an inspection visit to one of the project's sites. Once finished, it will "demonstrate the great work of the Lebanese state," he said on Twitter.

The project includes damming the Bisri River in Jezzine, and constructing a tunnel to transport the water to areas in Greater Beirut.

Abi Khalil, accompanied by the head of the Council for Development and Reconstruction Nabil Jisr and a team of specialists, visited the entrance of the water tunnel in the Chouf town of Damour.

"We inspected the first water project, and we were in one of the tunnels that will be carrying this water. The total length [of the tunnel] is 24 km," Abi Khalil said.

The National Strategy for the Water Sector is based on the storage of surface water in dams and the distribution of this water for usage.

"All of our surface water must be utilized efficiently, which will lessen our dependence on the artesian wells that have been drying up," he added.

The draft decree for the project was issued in the 1970s and revived in 2010 after Gebran Bassil, the current foreign minister and then-energy and water minister, signed off on the initiative. The project aims to overcome increasingly severe shortages in the public water supply.

“Hopefully by 2019 we’ll reap the rewards of the project and secure more than 750,000 cubic meters per dam,” Abi Khalil said.

14/12/2017 online at:

https://www.zawya.com/mena/en/story/Lebanons_new_water_project_will_be_operational_in_February_Minister-SNG_105620587/

Ripple Effects: Sharing Water and Building Peace in the Jordan River Valley

In the war-torn Jordan River Valley, we can meet the “strategic objective of reducing conflict by promoting cooperation on shared waters,” said former defense official Sherri Goodman at a recent Wilson Center event on environmental peacebuilding. Even in the midst of political disputes, Jordanians, Israelis, and Palestinians must work together to manage the scarce supplies of clean water to protect their health, their economies, and their security.

This cooperation—if properly supported and leveraged—could have ripple effects for broader peace efforts. By generating political support for transboundary cooperation, pioneering and award-winning NGO EcoPeace Middle East seeks to build a lasting peace in the region.

Basins at Risk: Local Conflict, Global Cooperation

As climate change intensifies, water-related stresses could potenitally spark conflict among parties that rely on the same diminishing water resources for survival. “Droughts and other extreme events are exacerbating marginal living standards in many Asian, African, and Middle Eastern nations, where widespread political instability and failed states already are national security concerns,” said Goodman, who is currently researching the interdependent relationship between national security and water as a Wilson Center senior fellow.

To catalog the factors that influence conflict over shared water resources, Oregon State University’s influential Basins at Risk project systematically evaluated transboundary water management practices around the globe. The evidence—gathered from historical records of water relations and spatial mapping technology—showed that cooperation among countries sharing international water basins occurs much more often than conflict.

However, “as you move down the scale to more local levels, the findings shift,” said Shira Yoffe, who contributed to the Basins at Risk study while a graduate student at Oregon State University. “Conflict over water is more likely at smaller geographic scales, especially where there are not institutions in place to mitigate that conflict,” she said. According to Yoffe’s research, conflictive events aren’t necessarily the direct result of water stress. Instead, conflict happens when communities lack the institutional capacity to manage rapid social or physical changes, such as the construction of a large dam that changes water flows.

Mutually Assured Scarcity: Sharing Risks in the Jordan River Basin

Many of the sub-state conflict incidents identified by the Basins at Risk study took place in the Jordan River Basin, which “has not historically been an easy place to work on water cooperation,” said Yoffe. The lower part of the Jordan River flows from the Sea of Galilee to

the Dead Sea and forms the border between Israel, Jordan, and the Palestinian West Bank. The ecological health of the Jordan River is extraordinarily poor, as political tension has coincided with years of uneven allocation, overuse, and degradation.

More than 96 percent of the Jordan's flow has been diverted by upstream users, leaving mostly saline and sewage water behind, said Yana Abu Taleb, the Jordanian deputy director for award-winning environmental NGO EcoPeace Middle East. As a result, people in the Lower Jordan Valley are facing shortages in water and electricity, as well as a growing sanitation crisis. These crises pose significant health and security risks to Jordanians, Israelis, and Palestinians alike. And extreme declines in precipitation in an arid Middle Eastern region make the situation even worse.

In Gaza, millions of people have no other option but to withdraw ever more groundwater, which is increasingly contaminated by sewage and saltwater, said Gidon Bromberg, Israeli director and cofounder of EcoPeace Middle East. "People should not be drinking it," he said, but that "doesn't mean that they're not drinking it, because what other alternatives do they have?"

Despite these critical challenges, the cross-boundary nature of water has served as a powerful entry point for peaceful cooperation. "You can't disengage from a shared environment," said Bromberg, pointing to a satellite image of water pollution moving from the Gaza Strip to the coast of Israel. "If we frame the conversation in a way that does speak to self-interest, but in a manner that advances mutual gain, we do see the parties come together, and we do see an understanding of real mutual risk should we fail."

Environmental Peacebuilding: Interdependent, Integrated, and Innovative

EcoPeace Middle East works to "build the necessary conditions for lasting peace" by generating political momentum for transboundary cooperation at all levels, said Taleb. Its Good Water Neighbors project, a groundbreaking initiative established by EcoPeace in 2001, fosters relationships among Jordanian, Israeli, and Palestinian municipalities by engaging mayors, youth, and other community members in joint projects that facilitate a shared sense of urgency around their shared water challenges. The Good Water Neighbors project has promoted consensus on the need to resolve regional water issues, encouraging Israel to supply more water to Palestinian cities, raising awareness about the negative impacts of poor water management, and strengthening institutional capacities for collaboration in the region.

Leveraging the water-energy nexus and relative strengths of the different players in the Lower Jordan Valley could also lead to crucial advancements in transboundary collaboration, said Bromberg. Israel could sell more water—at an affordable price—to Jordan and Palestine, where water scarcity is greatest. At the same time, Jordan could sell more solar-generated electricity to Palestine and Israel to power the desalination plants. Those plants would then produce more water for sale back to Jordan.

In this case, "we really do have winners across the board," said Bromberg. Palestine would no longer be solely dependent on Israel for water and energy; and Jordan and Israel would

benefit financially while strengthening the region's renewable energy economy. Adopting "healthy interdependencies, we believe, is a powerful way to promote regional water and energy stability as a foundation for long-lasting peace between our people," said Bromberg.

15/12/2017 online at: https://www.newsecuritybeat.org/2017/12/ripple-effects-sharing-water-building-peace-jordan-river-valley/

Water minister discusses water challenges with Korean delegation

Minister of Water and Irrigation Hazim Al Nasser discussed with a Korean parliamentary delegation led by Vice-Speaker of the Korean National Assembly, Shim Jae-chul, challenges facing the Kingdom, mainly in the water sector due to the Syrian refugee crisis.

The minister called for increasing support to water-stressed and host countries of refugees, adding that Jordan was one of the first countries in the region and the world to adopt programs to enhance water resources.

He also pointed to the strategic partnership between Jordan's water sector and Korean public and private institutions that financed a number of water projects across the Kingdom.

The Korean official highlighted the importance of providing all forms of support to the Kingdom to enable it to carry out water projects that would reflect positively on Jordan both economically and socially.

17/12/2017 online at:

http://www.petra.gov.jo/Public_News/Nws_NewsDetails.aspx?Site_Id=1&lang=2&NewsID=332561&CatID=13&Type=Home&GType=1

Saudi-led group wins deal to build key Oman water project

A consortium led by Saudi-based ACWA Power has been awarded the Salalah Independent Water Project by the Oman Power and Water Procurement Company.

The plant will be located in Salalah, Dhofar region and will have a capacity to generate 25 million gallons per day of desalinated water using reverse osmosis technology.

The consortium also includes Veolia and Veolia Middle East and Dhofar International Development & Investment Holding Co (DIDIC), a statement said.

The project is being procured by OPWP under a build-own-operate framework on the back of a 20 year water purchase agreement, it added.

Dhofar Desalination Company, the project company, will be owned by ACWA Power, Veolia Middle East and DIDIC.

Paddy Padmanathan, president and CEO of ACWA Power, said: "Water is the most vital commodity for human life as well as a necessity for all enterprises. We are delighted to have

been awarded this project and the opportunity to continue supporting Oman as a reliable supplier of desalinated water and power."

The engineering, procurement, and construction of the plant will be handled by a consortium of Fisia Italimpianti and Abeinsa Infrastructures Medioambiente while the operations and maintenance of the plant will be undertaken by a consortium of Veolia Middle East, NOMAC Oman and DIDIC.

Thamer Al Sharhan, managing director at ACWA Power, said: "Oman is a strategic country for ACWA Power – our portfolio of six plants can generate over 4,300 MW of power and 42 million gallons per day of desalinated water. ACWA Power is committed to ensuring the success of this project while creating real value for the local communities."

Demand for water in Oman is expected to rise by about six percent per annum over the next seven years.

11/12/2017 online at: http://www.arabianbusiness.com/industries/construction/385461-saudi-led-group-wins-deal-to-build-key-oman-water-project

Makkah region's water infrastructure to be expanded at a cost of SR9 billion

The Saline Water Conversion Corporation (SWCC) signed several contracts aimed at increasing water supply to some governorates in the Makkah region as well as ensuring supply to areas without water at a cost of more than SR9 billion ($2.4 billion).

The projects include the construction of the desalination plant in Jeddah (phase 4) with reverse osmosis (RO) at Shoaiba, the transfer of technology and the purchase of produced water through the establishment of a multi-desalination plant at the Shoaiba power and desalination plant, the Shoaiba Mina water transfer system (B).

The second phase in Taif, manufacture and supply of water transfer pipes from Arafat to Taif, implementation of pumping stations and the extension of pipelines of the water transfer system from Arafat to Taif.

These projects also include the manufacture and supply of the Rabigh-Jeddah-Makkah water transfer system, the implementation of pumping stations, the extension of the pipelines of the Rabigh-Jeddah-Makkah water transport system and the implementation of Taif-Turubah-Ranyah-Al-Khurma pumping stations system.

During the annual visit of Makkah Gov. Prince Khaled Al-Faisal to various parts of the region, citizens had reportedly urged the authorities to ensure adequate water supply to their areas.

They also demanded the establishment of campuses of various universities and called for the provision of electricity and other civic amenities to some villages. The Makkah governor is actively pursuing progress on these projects.

11/12/2017 online at: http://www.arabnews.com/node/1207116/saudi-arabia

Emirates Red Crescent in Deal to Develop Water Projects in Yemen

The Emirates Red Crescent (ERC) has signed agreements with Yemen's General Authority for Rural Water Supply Projects and Ministry of Education, to provide support for rural water projects and educational development initiatives in the Wadi Hadhramaut area, reported state news agency Wam.

Ahmed Al Neyadi, the deputy head of the ERC team in Hadhramaut, reaffirmed the ERC's keenness to support and improve infrastructure, utilities, and education sector projects, as well as providing humanitarian relief support to the residents as per the directives of President HH Sheikh Khalifa bin Zayed Al Nahyan.

"The ERC is keen to implement this necessary project to provide clean drinking water to Yemeni citizens," he stated.

The Hadhramaut Governorate Under-Secretary praised the great efforts exerted by the UAE and the ERC to support the people in the governorate in particular, and Yemen in general, across various sectors, stated the report.

07/12/2017 online at: https://www.albawaba.com/business/pr/erc-deal-develop-water-projects-yemen-1058274

ERC commissions new water project in Yemen

The Emirates Red Crescent (ERC), on Sunday commissioned a project to excavate and supply pumps for water wells in Ghail Bawazir Governorate of Hadhramaut.

The project is part of the ERC's efforts to address the scarcity of water in Hadhramaut.

The project opening ceremony was attended by Dr Adnan Mohammed Hamran, Director-General of Ghail Bawazir Governorate, Abdul Aziz Al Jaberi, Head of the ERC Team in Hadhramaut, and Ahmed Al Neyadi, Deputy Head of the Team.

The ERC-funded project entails the digging and equipping of two artesian wells to pump water for 50,000 people living in Ghail Bawazir and the eastern parts of Al Mukalla.

17/12/2017 online at: http://gulftoday.ae/portal/dc25cca7-def3-4d1e-9f5e-f96367be7e86.aspx

Egyptian water minister: Nile is vital to us, but we cannot stop Ethiopian dam

Egypt has “many alternatives” to deal with the stalled technical negotiations on the Grand Ethiopian Renaissance Dam (GERD) with Ethiopia and Sudan, Egypt’s Minister of Water Resources and Irrigation Mohamed Abdel Ati has said.

“We have many alternatives in between the two impossible alternatives; to dispense with the Nile water and not to build the dams altogether,” he said. There are other ways to negotiate, and Egypt has started many of these ways, but they cannot be declared,” the Egyptian minister said on Saturday during a visit to the northern governorate of Dakahlia.

The minister said that Egypt could not prevent the construction of the dam, but it also could not afford any substantial deficiency in its historical share of water.

“We have to admit that the dam is damaging to Egypt. We are currently working on making this damage, which will lower Egypt’s share of water, not serious. We will not allow this to happen.”

Abdel Ati said that the Nile is not just a water resource, echoing Egyptian President Abdel Fattah El-Sisi’s statements that the Nile for Egypt is a matter of life or death.

“We are a desert country and we rely on 97 percent of water from outside the border, both in terms of the share of the Nile and the groundwater shared by Egypt, Libya, Sudan and Chad,” he said.

“The rate of consumption of irrigation water in Egypt is 80 billion cubic meters, and only 60 billion is available,” Abdel Ati said. “We compensate for the difference with waste water treatment. Egypt’s share of water is stable while its population is growing at a high rate.”

He predicted that the population of Egypt will reach about 170 million in 2050, up from the current 100 million.

Abdel Ati said that desalination was not a substitute to compensate Egypt for any substantial shortage of its share of Nile water during the years of filling the dam. He stressed that Ethiopia has not yet started filling the dam, noting that Egypt had sent a warning to Ethiopia not to start filling the dam this year.

In a letter of good faith to the Nile basin states, the Egyptian minister said that his country participated during the 1950s in building dams in Uganda and Sudan. “Egypt does not mind building dams provided there is consensus,” he said.

He added that Egypt sent a letter to the World Bank on behalf of Egypt, Sudan and Ethiopia to finance the first detailed feasibility study for the construction of a dam on the Blue Nile, but in 2011 Ethiopia announced the construction of the GERD with different specifications.

This prompted the then Egyptian Prime Minister Essam Sharaf to visit Ethiopia and meet Prime Minister Meles Zenawi Asres. They agreed to form an international committee, whose findings showed a lack of sufficient studies. Based on the recommendations of the international committee, there have been changes to the construction of the dam.

Abdul Ati explained that the the dispute in technical negotiations related to two points. The first is “the baseline for the criterion of water-sharing of the Nile that must be committed by the two French consultancy firms (BRL and Artelia) which prepare technical studies on the effects of the dam on both Egypt and Sudan.”

The initial report prepared by BRL and Artelia was adopted by Egypt and Sudan. Both Ethiopia and Sudan objected to the 1959 agreement signed between Egypt and Sudan, which determines their share of the Nile water that reaches to Aswan city in southern Egypt.

The second point of contention concerns the way Ethiopia wants to fill the dam.

According to sources familiar with the technical negotiations, Ethiopia wants to complete filling the dam, which has a capacity of about 74 billion cubic meters of water, in a maximum of 3 years, while Egypt is demanding that the filling should be carried out from 7 to 9 years so as not to significantly affect the share of Nile water.

The Egyptian Ministry of Water Resources and Irrigation had managed the technical negotiations on the effects of the GERD and the terms of its filling since September 2014 until Minister Mohamed Abdel Ati announced the deadlock on Nov. 13.

Since then, several official statements issued by Egypt confirmed that ignoring the country's historical share of the Nile cannot be tolerated, and called for more political negotiations between the leaders of the three countries after technical negotiations failed.

Egypt's Minister of Irrigation explained that the issue of the Nile River is the issue of all Egyptian state institutions, and any decision will be taken by all these institutions.

He said: "Egypt has taken great strides toward securing its sources of water and guaranteeing its historical and strategic right in the Nile waters."

On the other hand, Ethiopia and Sudan are demanding the resumption of technical negotiations, considered by many officials and irrigation experts in Egypt to be a ploy to gain time until the completion of the dam and the start of filling it by the next flood season.

The Egyptian Minister of Irrigation said last week, on the sidelines of the Fourth Arab Water Forum, that Egypt had decided to freeze the technical negotiations on Grand Ethiopian Renaissance Dam (GERD) after the declaration of principles signed with Ethiopia and Sudan in Khartoum was derailed.

The minister said that Egypt had tried to make the construction of the dam a point of cooperation, not a source of disagreement. In the light of these attempts, Egypt had signed the Declaration of Principles, but the other side had not reached a solution.

"Egypt's water security is an integral part of its national security," Secretary-General of the Arab League Ahmed Aboul Gheit said at the forum. "Egypt is following the talks with great concern, because Ethiopia does not have enough inclination for cooperation and coordination. Its plans remain vague and worrisome."

Meanwhile, the Ethiopian Ambassador to Egypt Taye Atseke-Selassie met with members of the African Affairs Committee of the Egyptian Parliament on Nov. 27. The Ethiopian Foreign Ministry described the meeting as successful with talks that focused on ways to strengthen relations between the two countries.

The head of the committee, Dr. Al-Sayyed Fleifel, said that the visit was made at the request of the Ethiopian ambassador to discuss the cooperation between the two parliaments and in preparation for the visit of Ethiopian Prime Minister Hailemariam Desalegn to Cairo this month.

He added that the meeting with the Ethiopian Ambassador was within the framework of building confidence and a spirit of cooperation.

He said that the members of the committee stressed that any Ethiopian project should not affect Egypt's share of the Nile water or the interests of the Egyptian people.

"The Ethiopian ambassador stressed the interest of his country to continue to negotiate and not to harm Egypt during the period of filling the reservoir of the dam," he said, but reiterated that his country (Ethiopia) will continue to build the dam regardless of any differences.

Fleifel said the committee told the Ethiopian ambassador about "the sensitivity of the Egyptians to any water projects" and demanded that "the visit of the Ethiopian prime minister should reassure the Egyptians about the dam."

Fleifel said that "Egypt's current share does not represent more than 5 percent of Nile resources and this quota should be increased."

He added that the Ethiopian ambassador highlighted the joint management of the dam as it was a trilateral project and did not belong to one country. The committee also conveyed to the Ethiopian ambassador the concern of the Egyptians about the growing mutual visits between Qatari and Ethiopian officials, especially as Qatar supports some terrorist groups in Egypt, according to Fleifel.

The Ethiopian ambassador said that his country's recent visit to Qatar, which coincided with the announcement of the stalemate of the technical negotiations, had been scheduled earlier and had nothing to do with developments in negotiations on the dam.

On Dec. 4, 19 Egyptian Parliament members declared their rejection of the Ethiopian prime minister's visit to the Egyptian Parliament in December, which they called "dangerous."

They said the visit gave an advantage to the Ethiopian side, "which spares no effort to promote instigation against Egypt in all international forums, relying on the legal, political and economic lies that negatively affect the issue of the Nile waters as it is an issue of Egyptian national security and is a red line."

11/12/2017 online at: https://www.ogaden.com/egyptian-water-minister-nile-vital-us-cannot-stop-ethiopian-dam/

Egypt's dam plan in Halaib upsets Sudan

The Egyptian Ministry of Water Resources and Irrigation announced on Dec. that Egypt intends to construct a dam to collect rain and flood water in the basin valleys of Shalatin in the Halaib triangle on the Red Sea coast, raising concerns that it could spark a diplomatic row with Sudan.

Sameh Sakr, head of the ministry's groundwater and irrigation department told Egypt's official MENA news agency that the dam will have a capacity of 7 million cubic meters and,

at 12 meters high, will be the biggest in the Eastern Desert of Egypt. Sakr also claimed the dam would assist greatly in developing the region and protecting it from flooding.

Cairo has allocated 378 million Egyptian pounds ($18 million) to construct 11 dams and seven lakes to help protect development areas in the Red Sea province from winter floods, which have historically caused significant damage and a number of deaths.

On Friday, however, Sudanese Foreign Minister Ibrahim Ghandour reasserted his country's claim over the Halaib region.

In an interview with Asharq Al-Awsat, Ghandour issued "an invitation to Egypt to negotiate the sovereignty over (this) land, or resort to international arbitration."

He added: "We hope that our Egyptian brothers will negotiate, as they did with our Saudi brothers over the matter of Tiran and Sanafir, or resort to international arbitration as they did with Israel over the matter of Taba. Either choice will prevent any issue in our brotherly relations."

Ghandour said: "We will not let Halaib damage Sudanese-Egyptian relations. However, we will never hand over Halaib."

According to the 1899 Sudan Agreement signed by the British and Egyptian governments, the latitude 22° territorial boundary separates the two countries, which meant the Halaib triangle was in Egyptian territory.

Sudan, though, recognizes the administrative boundary drawn up in 1902, which assigned around 18,000 square km to Sudan, including the towns of Halaib and Abu Ramad.

When Sudan gained independence in 1956, both sides claimed sovereignty over the Halaib triangle. Since the mid-90s, Egypt administered the area as part of the Red Sea Governorate.

In July this year, Sudan filed a notice with the UN, claiming that Egypt is occupying the triangle, and refusing to claim any rights for a third party. That same month, Cairo announced it would start oil and gas exploration in the Red Sea Governorate, including the Halaib triangle.

Tensions between Sudan and Egypt have escalated lately, due to several issues, including contention over their border, and Sudan's support for Ethiopia in negotiations over the Ethiopian Renaissance Dam, which Cairo fears Ethiopia will manage in a way that reduces Egypt's historical water share from the Blue Nile.

Amid these tensions, the Egyptian authorities have released around 300 illegal Sudanese immigrants, who were jailed in Shalatin six months ago, according to the Sudanese newspaper Al-Youm Al-Tali.

17/12/2017 online at: http://www.arabnews.com/node/1210306/middle-east

Declining the Amount of Safe Drinking water in Afghanistan; An emerging pollution threat

Afghanistan lies in arid or semi-arid climatic region of the South Asia suffering from physical water scarcity with larger gaps between water availability and demand in different consuming sectors. In the last couple of years, the water scarcity has increased tremendously and is getting worse with the passage of every day. Population growth, which became triple in the last three decades, economic development, rapid urbanization, industrialization and other triggers for the declining of safe drinking water.

To the surprise of the experts of this sector, this sector largely remains unnoticed on policy level and thus don't get any attention on bureaucratic as well policy levels.

Weak status of law enforcement in drinking water regulation and mitigation of the vulnerable effects of climate change has pushed the country into crises compared to other regional countries. The effects of these crises are quite visible at the capital city of the country where the groundwater table successively drops down due to the over exploitation of the groundwater aquifers against a limited recharge in return. The country's water resources are heavily dependent on rain and snowfall, whilst groundwater withdrawal is the primary source of drinking water supply (i.e. 48%).

Safe drinking water in major cities of Afghanistan including Kabul have been intoxicated to a life threatening level which so far has been ignored by the relevant institutions in the country and therefore the regulatory and policy implementation factor has been underscored in many ways. According to Ministry of Urban Development Affairs, about 90% residents of Kabul city have access to drinking water, but with very poor implementation of national water quality standards. The aforesaid problem is silently and steadily killing our people and paves the ground for diverse pathogens to enhance its population and challenge the water environment in the country.

The government and other relevant quarters are slow in raising awareness on the topic in the country. As a result, citizens are not playing their role in safeguarding their water from one side and the government has paid a deaf ear to the problem on the other side. Consequentially, the situation begs attention on two fronts; the government needs to pay attention to the grave problem and fight the menace from one side and the people have to behave responsibly in dealing with drinking water from the other side.

In case of Kabul, there are four major wastewater treatment plants; in Wazir Akbar Khan, Qala e Zaman Khan, Thai Maskan and Karte-4. The wastewater treatment plants are of extremely poor quality and don't have the potential to treat the water. Despite this, their poor efficiency can barely cover half of the population of Kabul city. The underground as well as surface water are contaminated and took many forms of biological and chemical pollutants due to wastewater that are being drained to streets and canals which either infiltrates, percolates and reach the groundwater table or eventually ends up in the Kabul River. Since Kabul River is flowing in the heart of the city, more frequently used as a solid waste dump side and receives illegal discharge of sewage from the residential and commercial areas thereby working as a hub for dangerous pathogens and germ colonies which causes various diseases especially among the communities living and working alongside this river.

In order to cope with the high infection rate and water related health hazards, there is an urgent need for action to ensure supply of safe drinking water to the local population. The situation is being further deteriorated due to accelerated withdrawal of groundwater for industrial and commercial purposes causing a rather sharp decline in the groundwater table that challenges this precious resource against all sustainable measures. The decades-long unrest, repatriation of refugees and internal migration has caused unequal distribution of water resources as well as marginalization of communities. As If the government doesn't take steps to solve this issue and tackle the situation, the projected climate change scenarios will further exacerbate that will trigger migration in the next couple of decades for getting safe drinking water.

An administrative arrangement for managing water shortage is also a key hurdle in continued economic development of Afghanistan. In terms of remedial arrangement, the government of Afghanistan has to some extent managed the water shortage problem, rather than solving it. If the government fails to enforce applicable and sustainable solutions about drinking water scarcity and depletion issues, it stands to reason that the country will face severe drought in the future. Then Afghanistan will be forced to import water from abroad like other goods. Therefore, on priority basis an understanding of the administrative arrangements; for the better performance, tariff control, consumer well-being, public health, and environmental protection are recommended. This might propose a regulatory design required for the sector reforms in order to minimize the present and predicted environmental health risks from both natural and anthropogenic sources of water contamination and management. This way an initiative will lead us to ensure sustainable management of potable water for the most needy communities and regions of the country.

06/12/2017 online at: https://www.pajhwok.com/en/opinions/declining-amount-safe-drinking-water-afghanistan-emerging-pollution-threat

Afghanistan- Government serious in protection of water dams

The government seems serious in protection of the water dams as water and energy minister said Monday that a committee was formed for this purpose.

Ali Ahmad Osmani, told legislators that the committee was formed to prevent security threats against the dams.

'Each dam has a certain enemy,' Osmani said. 'We have employed three foreign experts to clarify the vulnerability of the dams.'

Ten security forces were killed some six months ago in an enemy attack on the Salma dam in the western province of Herat.

The ministry of interior also assures that the security of dams would be ensured by any price.

'This is a very important issue for us,' said Nosrat Rahimi, a spokesman for the interior ministry. 'Security of dams is in our work program and we will provide it by the most of our ability.'

In response to the MPs' questions regarding the low budget capacity, the minister of water and energy said that 64 per cent of the ministry's budget was spent in the outgoing Afghan year.

18/12/2017 online at: http://www.menafn.com/1096246674/Afghanistan--Government-serious-in-protection-of-water-dams

Sindh's water being deliberately contaminated with human waste: CJP

Human waste is being deliberately released in water, observed Chief Justice Saqib Nisar during Wednesday's hearing of the water pollution case. The remarks of the chief justice came after a short-film about contaminated water was shown in the courtroom.

In July, a report submitted to the Supreme Court stated that 90 per cent of drinking water samples collected from Karachi were unfit for human consumption and a significant portion was tainted with human waste.

Sindh Chief Minister Murad Ali Shah and former Karachi mayor Mustafa Kamal arrived at the Supreme Court's Karachi registry to appear before the bench hearing the case.

During the hearing, Chief Justice Nisar observed that the water situation in Sindh is troublesome, adding that the chief minister has been summoned so they can resolve the situation together. The chief justice stressed it was the responsibility of the government to provide clean water to residents.

"If you say, we both can go drink and check the quality of water from any stream in Mithi," Chief Justice Nisar remarked.

Justice Nisar added: "I wish [PPP leader] Bilawal Bhutto Zardari knew of the [water] situation in Larkana".

He further asked the chief minister to rid Karachi populace of water tankers, adding that it was his (CM Shah's) responsibility to provide the citizens with clean water.

The chief justice further said they would not interfere in the administrative affairs, however, they would also not allow anyone, be it the chief minister or the prime minister, to act against the constitution.

"Even if we have to come to Karachi every week and summon you, we would do that," he told CM Shah.

Justice Faisal Arab also observed that people go to court after witnessing the failure of the government.

'Situation not as dire'

Sindh Cheif Minister Murad Ali Shah informed the bench hearing the case that the water crisis is not as extreme as shown by the petitioner, adding that "if I get an opportunity I will show my video to the court".

He was referring to a short video by petitioner Shahab Usto which was shown earlier in court through a projector.

The chief minister said that the provincial government is working to resolve the issue, however, it is facing a shortage of funds.

Shah claimed that 100 per cent water supplied to Lahore, 73 per cent in Sheikhupura and 88 per cent in Sargodha is arsenic, adding that the court proceedings appear to only single-out Sindh.

To this, the chief justice responded that even if the video is set aside, the extremity of the situation can be gauged from the commission's report into the matter.

K-4 will not meet city's water requirement: Kamal

Former mayor Mustafa Kamal during his appearance before the court said that the metropolis needs 1250 mgd (million gallons a day) but receives only 1.51 per cent of the total water supplied to Sindh.

He said K-3 and K-4 projects were introduced during his tenure, adding that the project even after its completion would not meet the city's water requirement.

Separately, while addressing journalists after the hearing, Kamal said that that the metropolis is facing an acute shortage of 600 MGD.

He added that the completion date given by the government is 2018, whereas according to his knowledge, the project will not be completed even in four-year time.

Later, the apex court adjourned the hearing until December 23, directing the chief minister to submitted a written response on the issues facing the government on the matter of water contamination.

'Matter of peoples lives'

In the last court proceedings of the case, Justice Nisar observed: “This is a matter of people’s lives, it cannot be ignored. The chief minister will be asked about all the steps he has taken in this regard.”

The chief justice also remarked that the judiciary must intervene when the government fails to fulfil its responsibilities.

“There will be no compromise on air and water pollution,” he remarked, adding “the high officials will also be summoned in the case if necessary.”

The bench also summoned Kamal as during his tenure, land reserved for Mehmoodabad water treatment plant was reportedly illegally allotted.

Meanwhile, Pakistan People's Party Chairperson Bilawal Bhutto Zardari shared on social media that he is glad that Sindh chief minister will get an opportunity to present the case of PPP government in Supreme Court.

Over the matter, Bilawal tweeted: "1 of biggest crisis affecting all of Pakistan is water. The Sindh Govt has taken practical steps to address this from investing in the most RO plants across the province, linging of our canals and construction of damns. I'm glad CM will get a chance to present our case in SC."

06/12/2017 online at: https://www.geo.tv/latest/170902-water-pollution-case-sindh-cm-mustafa-kamal-reach-sc-karachi-registry

Water scarcity in Pakistan

Water is the most important element necessary for human beings, animals, insects, plants even for whole planet. Sources of water available in Pakistan are rainfall, surface water available in rivers and underground water available below the earth surface. After the Indus Water Treat, water of only two Rivers i.e. Jhelum and Chenab are available for Pakistan while the availability of water in remaining three Rivers i.e. Ravi, Sutlej and Bias will be under India's control. After the construction of dams and barrages by India on River Chenab and Jhelum the Indus Basin Treaty was violated, hence created problems of water shortage for Pakistan which is still becoming more and more severe with the passage of time.

According to the UNO report, Pakistan is at 7th position in the list of countries which are facing water crisis. Presently, Pakistan has surface water of 153 MAF and underground water resources of only 24 MAF and may face water shortage of 33 MAF during the year 2025.

The population of Pakistan is increasing at a rate of 3.2%. Currently, we have to feed more than 200 million people and if population rate remains the same then it will be almost double by the year 2025 and hence, the consumption of the underground water will also add to the problem which will further be aggravated by the factors of global warming and the climatic changes.

According to a research study on water resources of Pakistan , approximately water having economic values of 70 billion dollars is being thrown in the sea every year due to non-construction of water reservoirs. A water shortage country which has foreign reserve of only 20 billion dollars cannot afford throwing water of economic value of 70 billion dollars every year in the sea.

Study of Pakistan Counsel of Research on water Resources of Pakistan (PCRWR) revealed that rapid depletion of ground water may soon create worsening water crisis in Pakistan especially in major cities causing a drought like situation. Such crisis need to be taken on war footings otherwise, a large section of Pakistani population will be affected with severe shortage of water.

Due to excessive pumping of underground water quality of underground water is contaminating rapidly with heavy metals like Copper, Nickel and Cobalt etc which is an important cause of spreading Hepatitis and various other diseases.

The problem of water shortage in Pakistan has gained the momentum as our water capacity is only for 30 days and Pakistan has the 4th highest rate of water use in the world. It simply means that water intensity rate – the amount of water in cubic meters used per unit of GDP is the world highest and no country economy is more water intensive then Pakistan .

The remedial measures to overcome these horrible water shortage in Pakistan immediate steps to be taken include:

Preparation of Country water policy.

Construction of water reservoirs.

National action plan to be formulate for judicial use of available water.

Reduction of water losses through seepage, leaching and percolation by lining of Canals, Distributaries and Water Channels.

Controlled over pumping of underground water and over irrigation practices.

By increasing the water use efficiency of the crops by switching from conventional agriculture to conservative agriculture.

By adopting water use efficient methods of irrigation like Sprinkler, Basin and Drip irrigation.

07/12/2017 online at: http://nation.com.pk/07-Dec-2017/water-scarcity-in-pakistan