



ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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Mosul Dam No Longer on Brink of Catastrophe

After six months of intensified repairs, Iraqi officials claim the massive Mosul Dam has been saved from impending disaster. But experts say it will always be at risk of collapse and will need constant maintenance.

"There remains no danger to the dam now," Hassan Janabi, Iraq's minister of water resources, told VOA. "It is with overwhelming happiness to announce that it is going back to normal operation."

The 13-kilometer-long dam on the Tigris River in northern Iraq is the Middle East's second-largest dam. Concerns over its instability have been persistent since its construction in 1981 — when it was known as the Saddam Dam — due to the fact that it was built on a soft landscape, and there have been continuing questions about shoddy work when it was built.

Located 60 kilometers north of Mosul, the dam received international attention after Islamic State took control of it for several weeks in 2014. After U.S.-backed Kurdish peshmerga forces pushed IS from the dam area, experts warned it was in dire condition and could unleash a trillion-gallon wave of water on 1.5 million people in Iraq's two largest cities, Mosul and the capital, Baghdad.

'No significant signs of distress'

Italian company Trevi started repairs in October 2016. Carlo Crippa, the project manager, said the dam structure now shows no significant signs of distress. However, constant maintenance will be necessary, as "the rocks of the foundations are prone to dissolution due to the circulation of water."

The five waterways that control the flow of water into the dam are open, after being closed for over 12 years, and Minister Janabi said water levels are now at the highest level since 2005.

Despite these assurances, experts who have studied the dam structure say it remains far from safe.

"There is always a chance that water is going to migrate," said Azzam Alwash, an Iraqi-American civil engineer who has served as an adviser on the dam. He said 24 sinkholes remain in the dam's reservoir, making it vulnerable to pressure from water flows.

"This is a dam tantamount to a nuclear bomb," Alwash said. "Are you going to take the risk of keeping your family in a place where it can sink under as much as 15 meters of water in a matter of hours? I'm not."

More serious risk

Nadhir al-Ansari, professor of water resources and environmental engineering at Lulea University in Sweden and a published expert on the Mosul Dam, agreed that the risk is serious.

"There is no guarantee the dam will ever be safe. Studies done on the dam all show that its collapse is imminent," he said. "The minister may say it's safe because Iraq is already past the flooding season, which peaks in April and ends in May. You will have the same problem every year in April."

To fill the cavities that form underneath the concrete, engineers have injected the dam with more than 50,000 tons of grout, a liquefied mixture of cement and other additives, since it opened in 1986.

"The grouting solution by the Italian company is only a temporary measure for emergency fixes," al Ansari said. "When they block a cavity in one place, it appears in another place. This is something that can't be stopped. ... The only solution is to build another [dam] close to it."

Such an effort began in 1988 with the construction of Badush Dam, 12 kilometers away. It was 40 percent complete before work was halted in 1992 due to U.N. sanctions on Iraq.

Apart from building a new water-containment system to relieve the strain on Mosul Dam, Alwash said "the solution is to empty the reservoir." To do that, Iraq would have to reach out to neighbor states upstream on the Tigris River — especially Turkey — to control the influx of water.

"Don't put more money into repairing it," he said. "Put political will to work with neighboring countries on water management."

For now, Janabi said teams of experts will continue to monitor the dam's stability. He said he is confident "in our ability to manage the dam under all difficult circumstances."

05/05/2017 online at: <http://www.voanews.com/a/mosul-dam-no-longer-brink-catastrophe/3839850.html>

We cannot afford to waste wastewater: UNESCO representative to Iran

“At the time when demand is growing and limited resources are increasingly stressed by over extraction, pollution and climate change, we simply cannot neglect the opportunities from improved wastewater management; we cannot afford to waste wastewater,” said UNESCO representative to Iran on Tuesday.

Esther Kuisch Laroche made the remarks over the opening ceremony of the first technical session and training workshops on water security in human settlements held in Tehran on Tuesday.

“Urbanization has come at great cost to our water resources and we heavily degrade it to enable development, supply drinking water, and facilitate transport in industry and a large proportion of wastewater is released into the environment without being either collected or treated and that is particularly true of low income countries where on average only 8 percent of domestic and industrial waste water is treated compared to 70 percent in high income countries,” Laroche regretted.

She went on to say that “as a result in many regions of the world water contaminated by bacteria, nitrates, and phosphates is discharged into rivers and lakes ending up in the oceans with negative consequences for the environment and public health.”

“Poor water quality not only negatively affects human health and ecosystem in multiple ways but also makes water unfits for different purposes and hence reduces the water resources availability and consequently water pollution is one of the greatest threats to availability and reduction of fresh water,” she noted.

“Pollution reduces the availability of freshwater supplies which are already in distress least of all because of climate change; nevertheless, governments and decision makers have been primarily concerned by the challenges of water supply notably when it’s scarce while overlooking the need to manage water after it has been used,” she added.

“The collection, the treatment and safe use of wastewater are at the very foundation of the circular economy which result in economic development with the sustainable use of resources,” the UNESCO official stated.

“Reclaimed water are largely under-exploited resources which can be used many times,” Laroche, reiterating, “Water treatment technologies do not need to be out of reach for developing countries because low cost treatment solutions already allow for the extraction of energy and nutrients, they may not yet allow for the direct recovery of potable water but they can produce viable and safe water for other uses such as irrigation and materials derived from waste water can also provide additional revenue to help cover the investment and additional costs of wastewater treatment.”

“And I’m therefore very pleased that water quality, water reuse, and wastewater recycling feature prominently on the agenda of this conference. Iran has made lots of efforts in the area of wastewater treatment and I hope that you’ll share these local experiences that can also benefit other countries in the region,” she highlighted.

Water shortage to affect one in four people by 2050

By 2050 at least one in four people is likely to live in a country affected by chronic or recurrent shortages of fresh water if we don’t take urgent action, she warned, “it is therefore not surprising that access to water and sanitation as well as environmental protection and sustainable urban development are issues at the heart of the 2030 agenda for sustainable development.”

She further noted that “in September 2015 world leaders adopted a set of 17 sustainable development goals to end poverty, protect the planet, and ensure prosperity for all and goal number 6 deals specifically with water; it calls upon conscience to ensure access water and sanitation for all, but sustainable water management is not just important for goal number 6, it is really vital in achieving all of the sustainable development goals.”

“In a world of 7 billion people with limited natural resources it is clear that individuals and societies will have to learn to live together in harmony and to take responsible actions based

on the understanding that our actions today and here will have implications for the lives and livelihoods of people on other sides of the world as well as for future generations,” she said.

“And sustainability requires substantial changes in the ways we produce and consume. Fundamentally it requires new ways of seeing the world. New ways of thinking about our responsibilities to each other and to the planet and new ways of acting and behaving as global citizens. And this is why today, perhaps more than ever before, we make joint efforts to move forward,” she suggested.

Global water use outpaces population growth

Addressing the conference Laroche continued “the planet’s fresh water resources if managed sustainably and effectively can meet demands of the world growing population with good water policies. But we will have to make decisive urgent action because global water use is growing at more than twice the rate of population increase in the last century and for many countries water scarcity is already the most pressing challenge to social, economic, and human development at large.”

Today more than half of humanity, 3.9 billion people, live in cities and this global urban population will continue to grow at an unprecedented rate with two out of three people expected to live in cities by the year 2050, she pointed, saying, “So finding solution for sustainable urban water management is indeed a very pressing issue and the development for national capacities in urban water management is a pre-condition for understanding a developing solution to address water scarcity around the world.”

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“Our planet today is facing unprecedented challenges ranging from increasing social disparity and inequity, population growth, climate change, arising number of natural disasters, environmental degradation, shrinking biodiversity, to the unsustainable use of fresh water resources,” Laroche lamented, adding, “Our planet is under pressure, and we are reaching the limits of its boundaries. Across the world water scarcity is increasing exacerbated by the effects of climate change and this is why it gets to become of the most important human security challenges for the near future.”

“Let me just once more underscore the importance of this conference and your presence today,” she underlined, “We really count on your expertise and your active participation over the coming days to compile the outcome this event into UNESCO publication on advances of water management in arid and semi-arid areas. The purpose is to share your experiences and your recommendations and your lessons learnt with countries around the world.”

Low precipitation’s impact on highly populated areas

Iranian Deputy Energy Minister Sattar Mahmoudi, for his part, commented on the negative effects of urbanization particularly in areas with lower precipitation levels.

Iran is situated in an arid and semi-arid area and many provinces such as Isfahan, South Khorasan, Semnan, and Kerman are highly populated while there isn't enough water to support the dwellers, Mahmoudi said.

Creating balance between the population and the amount of water available comes at a great cost; he explained, "Transferring water, building dams, and recycling are of the expensive methods we need to implement to manage water in these regions."

"The truth is that the water resources are shrinking due to global warming and increasing evaporation levels and that means we have to come up with more sustainable methods of development," the deputy minister noted.

"We did a great job in urban wastewater treatment, however we still need to put a great deal of effort into equipping rural areas with proper wastewater treatment plants," he added.

Arranged by Tehran Regional Water and Wastewater Company and Energy Ministry in association with United Nations Educational, Scientific and Cultural Organization (UNESCO) International Hydrological Program (IHP) the three day event is concentrating on water security particularly in human settlement in urban areas.

The event also includes six various workshops intending to discuss water related issues with lecturers from the U.S., Cyprus, South Korea, China, Australia, France, and South Africa.

03/05/2017 online at: <http://www.tehrantimes.com/news/413120/We-cannot-afford-to-waste-wastewater-UNESCO-representative-to>

Israel officially in drought year

Israel Meteorological Service data indicate that the country has entered a drought year, showing that the annual rainfall stands at only about 71 percent of the cross-year average.

Due to the worrying situation, the Water Authority is mulling over a plan to pump tens of millions of cubic meters of desalinated water into the Kinneret in order to prevent it from drying up.

A drought is formally announced by a joined committee of the ministries of agriculture and finance, after they have identified certain areas that were harmed by it—for compensation purposes. But by the standards of climate organizations and the Water Authority, a year that had rainfall of less than 80 percent of the cross-year average is considered a drought year.

Data show that in the Kinneret area, as well as areas from which rainfall flows into the Kinneret, rainfall was measured at only 70 percent of the average. The low point was measured in the Shfela region, which experienced only 50 percent of the cross-year rainfall average.

The shortage of water in the lake is causing an increase of salt levels in the water and could lead to environmental degradation and render the water unusable for irrigation or drinking.

Israel is not suffering from water shortages thanks to its desalination facilities, though there is no guarantee that the facilities will be able to keep up with demands. This is the fourth year in a row that the northern region is hit by drought, and the results can be seen in the sad state of the Kinneret and the area's streams and springs.

The forecast for the coming years is a continuous decline in rainfall in the northern region, so even if the country won't experience a drought, there will still be a shortage of water flow into the Kinneret.

The Water Authority has been trying unsuccessfully in recent years to get approval for a new desalination facility in the north, which will serve as an additional emergency water source for the Kinneret, but local residents have been pushing back against the plan.

With the looming danger of the Kinneret's declining water levels that could lead to degradation in the quality of its water, the Water Authority is also examining a plan to pump up to 50 million cubic meters of desalinated water into the lake in next winter, should the desalination facilities have a surplus of unused water.

There are a few potential problems with this plan. The plan is to get the water into the lake via the Tzalmon Stream, but the water might percolate into the stream bed without reaching the lake.

Another possible problem is that the desalinated water lacks basic minerals, and research is still needed to conclude what sort of effect it could have on the lake and the local fauna and flora.

The low water levels have already led the Water Authority to almost completely halt all drawing of water from the lake.

04/05/2017 online at: <http://www.ynetnews.com/articles/0,7340,L-4957372,00.html>

Symposium tackles water scarcity in the Middle East

An interdisciplinary group of experts will explore the wide-reaching ramifications of water scarcity in the Middle East as well as potential social, political and technological solutions to this critical issue at a public daylong symposium May 24 at Northwestern University.

“The Second Annual Symposium on Water in the Middle East and Israel: Regional Water Sustainability and Resilience” will take place from 9:30 a.m. to 4 p.m. in the Rebecca Crown Center’s Hardin Hall, 633 Clark Street, in Evanston.

Water scarcity drives conflict and leads to social instability, said Aaron Packman, director of the Northwestern Center for Water Research, one of the event organizers. Robust long-term

solutions to water scarcity are necessary for stable societies in the Middle East, which is ground zero for this global threat because of an extremely limited water supply.

“Drought and the associated reduction in food production contributed directly to the civil war in Syria and thus to the global migrant crisis we face today,” Packman said. “This connection between water crises, food crises, civil unrest and large-scale involuntary migration has been identified by the World Economic Forum as one of the most pressing global threats over the next five to 10 years.”

Aaron Packman

In addition to the Water Center, the symposium is co-sponsored by the Crown Family Center for Jewish and Israel Studies in the Weinberg College of Arts and Sciences and the Buffett Institute for Global Research.

Six scholars will explore technological solutions to water scarcity, such as desalination and precision agriculture; the socio-political aspects of water security in the Middle East; and strategies for international cooperation to achieve water security, peace and health in the region while factoring the added complication of climate change.

Israel's role

Israel is the region's leader in water management technologies, such as efficient irrigation and cutting-edge desalinization techniques, said Elie Rekhess, associate director for Israel studies in Weinberg. Water treaties forged in the mid-1990s between Israel and Jordan and Israel and the Palestinian Authority have produced significant cooperation between entities historically hostile toward one another.

Given that history, however, peaceful collaboration is always a challenge, Rekhess said.

Elie Rekhess

“The continuous instability in the region and particularly the ongoing armed conflict between Israel and the Palestinians cast a shadow over regional collaborative efforts,” he said. “In Iraq and Syria, ISIS turned water installations into strategic weapons, threatening to flood vast areas, deny millions of basic water rights and displace entire populations.

“The international community, the United Nations, humanitarian NGOs and academic research institutes can — and should — play a major role in enhancing cooperative policy.”

Beyond the region

Threats to water security extend well beyond the Middle East. While most Americans don't think much about the issue when they turn on the tap, high-profile incidents like the Flint, Michigan, water crisis demonstrate the challenges of delivering clean water to large populations, even in developed nations.

“I think a lot of people are wondering if their city could be the next Flint, and they should wonder,” said Packman, professor of civil and environmental engineering at the McCormick

School of Engineering. "It takes ongoing investment, constant vigilance and a lot of good engineers to ensure that we have safe and secure water supplies."

Compounding the problem is the effect climate change has on the Middle East, already one of the most arid parts of the world. The stakes are high to develop more resilient water systems and use water more efficiently in the region, especially with the specter of climate-change induced changes in precipitation patterns looming.

"The Middle East is definitely getting hotter, which means more evaporation and less overall water available," Packman said. "Predications of future precipitation in the region are uncertain, and any shifts will cause disruptions and, potentially, threats."

08/05/2017 online at: <https://news.northwestern.edu/stories/2017/may/symposium-tackles-water-scarcity-in-the-middle-east/>

Jordan valley Arabs block water from Jewish communities

Residents of the Arab village of Bardala in the Northern Jordan valley have cut off the water flow to Jewish communities in the region.

The residents blocked up the water holes which have been drilled in the region, preventing water from flowing to communities in the region. The local council said that the Mekorot water company is preparing to deal with the problem.

04/05/2017 online at: <http://www.israelnationalnews.com/News/Flash.aspx/386887>

Jordan inaugurates China-funded water project

Jordan on Thursday inaugurated a mega water project funded by China that seeks to reduce pressure on Jordan.

The project, which costs around 1.8 million U.S. dollars and is funded by China, entails infrastructure work to enhance water supply in Al Russaifeh area, the Ministry of Water and Irrigation said in a statement emailed to Xinhua.

"The project will play a key role in reducing pressure on Jordan as it is hosting a large number of Syrian refugees who place a great pressure on the country's water resources," Minister of Water and Irrigation Hazem Nasser said Thursday.

According to official figures, there are around 1.3 million Syrian refugees in Jordan of whom only 10 percent live inside camps.

The project, which is funded by a grant from China, will help enhance water supply to the northern areas of Jordan, said the minister.

The project entails extending new water pipelines and rehabilitating water infrastructure in the area.

The project, he said, will help reduce the percentage of water loss due to worn out networks.

Pan Weifang, Chinese Ambassador in Amman, voiced China's keenness to help Jordan amidst the presence of a large number of Syrian refugees.

The Chinese ambassador called for increased aid to meet Jordan's needs, especially in the field of water and waste water, stressing that Jordan is a role model to be followed in terms of management of water resources.

04/05/2017 online at: http://news.xinhuanet.com/english/2017-05/05/c_136257810.htm

Authorities tackle 30,000 violations on water resources since 2013

As the national crackdown on violations on water resources and networks enters its fourth year, authorities on Saturday announced that over 30,000 violations on water mains and resources have been prevented.

The campaign, started by the Ministry of Water and Irrigation in the summer of 2013, has seen the retrieval of millions of cubic meters of stolen water and the prevention of the drilling of illegal wells, a source at the ministry said.

"Since over 17 teams started continuous checks on water resources and networks across the country, we have sealed 890 illegal wells, as well as seizing and confiscating 51 drilling rigs which were being used for illegal activities," the official source, who preferred to remain anonymous, told The Jordan Times.

The ministry banned the drilling of wells in 1997 to curb random pumping of water and preserve aquifers from depletion and salinity. Its estimates indicate there are 1,100-1,200 illegal wells still operating across the country.

In April alone, the ministry sealed nine illegal wells in coordination with security forces, the official noted.

"In addition, technical teams have removed 690 illegal fixtures on water mains and handled more than 12,000 violations on the King Abdullah Canal," he added.

The 110-kilometre King Abdullah Canal, which is supplied by the Yarmouk River, irrigates 40 per cent of the crops in the Jordan Valley, while supplying some 40 per cent of the capital's water after being treated at the Zai Water Treatment Plant.

The ministry said it would show "no leniency" towards those caught stealing water, with the official noting the financial burdens associated with detecting and rectifying water violations, which also has a negative impact on securing the continuous and sufficient supply of water to citizens.

"Those caught stealing water are referred for legal action. Hundreds of water-related cases are now being looked into in courts," the official said.

The amended Water Authority of Jordan Law stipulates stiffer penalties against those who abuse any element of the water system.

Those who abuse water carriers and mains, wastewater, pumping, purification or desalination stations, or cause the pollution of water resources, pipes or stations used for drinking water, or are involved in the digging of wells without obtaining a license, face a prison sentence of up to five years and fines of up to JD7,000.

In addition, violators who cause damage or loss to water and wastewater projects can be jailed for up to three years and fined up to JD5,000, according to the amendments.

All penalties stipulated under the law are doubled in the case of repeat offences.

06/05/2017 online at: <http://www.jordantimes.com/news/local/authorities-tackle-30000-violations-water-resources-2013>

Saudi's SWCC signs Yanbu water plant deal with Chinese Sepco III

May 7 Saudi Arabia's Saline Water Conversion Corp (SWCC) signed a deal with China's Sepco III Electric Power Construction Corp on Sunday to finish building the third phase of the Yanbu water and power project, the Saudi company said.

The power plant, being built on the Red Sea coast, will cost 5.16 billion riyals (\$1.37 billion) and have a power generation capacity of 2,500 MW in addition to producing 550,000 cubic meters of water a day to supply the Muslim holy city of Medina.

General Electric will manufacture the plant's main equipment, an SWCC statement said.

First desalinated water production will come onstream in a year, ramping up every three months to full capacity in 22 months, the statement said. It did not give a time-frame for the completion of the power generation units.

Samsung Engineering Co Ltd, which was part of a consortium that won the contract to build the project said in January its order from SWCC to build the Yanbu plant had been terminated.

SWCC said the project was 60 percent complete in terms of construction work. (Reporting by Reem Shamseddine; editing by Sami Aboudi and Ros Russell)

07/05/2017 online at: <http://www.reuters.com/article/saudi-water-idUSL8N1I90KS>

Qatar Charity helps provide water in Taiz

Non-functioning well pumps due to the lack of diesel encouraged Qatar Charity, in cooperation with Sobol Charity, to provide clean water for people in Taiz.

This project provides 104 barrels of diesel per month to ensure the operation of the pumps of 8 major wells in the province, which will provide water for more than 300,000 people living in difficult conditions because of the imposed suffocating siege.

Al Ka'bi said that QC implemented this project in Taiz aiming at reducing diseases, displacement of people, and protecting people from the dangers of indiscriminate shelling during their journey to search for water in places far from their homes. He indicated that QC has implemented many other projects in Yemen on water and sanitation. Al-Ka'bi thanked the philanthropist of Qatar for donating to help in the reoperation of 8 wells in Taiz.

At a cost of QR60,000, QC previously cooperated with Al Dawa Islamic Organization to renovate, rehabilitate, and furnish six schools in Marib.

These six schools are Al Mutawakil, Al Durra, Al Faruq, Jafra, Sahari and Humaidah in Majzr, El Wadi, and El Medina directorates.

QC has recently implemented "Emergency Relief" project, where it distributed 2,500 food baskets to contribute to relieving the effects of famine in the targeted area, whose population suffers from poverty and rising food prices. The charity helped foster a spirit of social solidarity and securing food needs for beneficiaries.

08/05/2017 online at: <http://thepeninsulaqatar.com/article/08/05/2017/Qatar-Charity-helps-provide-water-in-Taiz>

Pak to work with India, Afghan on water management

Pakistan is seeking a joint mechanism with India and Afghanistan for watershed management and trans-boundary aquifer sharing to minimise the negative impact of development projects. Watershed management relates to the land and water management practices that can help protect and improve the water quality, while aquifer refers to the underground layer of rock or minerals that holds water.

This is part of Pakistan's National Water Policy, which also seeks to ensure 100 per cent metering of urban water uses, including drinking and sanitation, the Dawn reported. The policy finalised by the government and the provinces was on the agenda of the Council of Common Interests yesterday, but could not be taken up due to Prime Minister Nawaz Sharif's political engagements, the daily reported.

The policy concedes that "the Indus Waters Treaty provided a mechanism for water-sharing with India, but its provisions on hydropower development across the Line of Control had the potential of threatening Pakistan's water availability during low-flow periods," the daily said. The treaty also does not provide for minimum environmental flows downstream of the international boundary for the Eastern Rivers — whose waters lie with India — exposing the population living downstream to serious hazards, it said.

"The regional mechanisms involving more than two neighbors shall be explored for a viable solution to Pakistan's growing vulnerability to hydro-meteorological disasters, owing to trans-border winter releases and stoppages at critical times of monsoon and during rabi and kharif planting seasons," it said. A mechanism shall also be worked out for sharing of trans-boundary aquifers and joint watershed management, including sharing of real-time water flow information.

A study would also be conducted to analyze the impact of challenges arising out of developments on the western rivers and examine measures to minimize the impact within the framework of the Indus Waters Treaty and international water laws. The new policy acknowledged that water was a "highly under-priced commodity" and its prevailing cost recovery through cess was hardly able to meet a fraction of the operating and maintenance cost of the irrigation infrastructure.

The policy said that full financial sustainability shall be ensured to provide progressively safe drinking water and sanitation facilities. "This shall be facilitated by effective reduction in wastage, theft and reduction of non-revenue water and 100 per cent metering" while providing safety nets for impoverished communities.

A mechanism would be put in place by all the federal and provincial governments to charge all types of water use in order to ensure the recovery of the cost of repair and maintenance of water infrastructure.

03/05/2017 online at: <http://www.deccanherald.com/content/609589/pak-work-india-afghan-water.html>

Pakistan to work with Kabul, Delhi on water management

The government is seeking a joint mechanism with India and Afghanistan for joint watershed management and trans-boundary aquifer sharing to minimize the negative impact of development projects of neighbors.

Watershed management relates to the land and water management practices that can help protect and improve the water quality, while aquifer refers to the underground layer of rock or minerals that holds water.

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A copy of the policy, seen by Dawn, concedes that the Indus Waters Treaty provided a mechanism for water-sharing with India, but its provisions on hydropower development across the line of control had the potential of threatening Pakistan's water availability during low-flow periods.

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For the first time, policy-makers seem to have recognized that freshwater is a finite resource, which cannot meet the unlimited demand of numerous users and that increasing population is a key factor for the increase in water demand.

The concept of "More Crop Per Drop" will be pursued to ensure food security through a national plan to improve irrigation methods and practices and introduce new varieties of crops of high yields and lower water consumption, resistant to heat stress, drought tolerant, and less prone to insects and pests.

Ground water tables will be managed to ensure that crop growth is not impeded and prevent land salinity or underground saltwater intrusion. It has been feared that continuous ground water extraction through tube wells could soon lead to the extraction of saltwater.

Rural water supply and sanitation services will be charged at affordable rates and it will be mandatory for the relevant agencies to keep the quality of drinking water, urban or rural, above specified standards.

A plan for flood zoning will be implemented to prevent losses to people living along river banks. For this, respective governments to restrict or prohibit permanent settlements in high and medium flood risk areas on the basis of zoning and mapping of the River Indus and its tributaries — Jhelum, Chenab, Ravi, Sutlej, Kabul and Swat.

The sources of surface and underground water will be diligently protected from contamination and maintained in a healthy state. Development of hydroelectric power will also be treated as a high priority objective.

03/05/2017 online at: <https://www.dawn.com/news/1330768>

Kohistan to get Rs19m drinking water project soon

Indus Earth Trust (IET) is launching a water replenishment project in Kohistan, Thatta district for which a multi-national beverages industry has provided assistance amounting to Rs 19 million.

The water resource management system aims to provide remote communities in Kohistan, Thatta with access to water through replenishment of ground water and rainwater harvesting. The project will benefit about 600 households in some 40 villages and targets SDG 3 (better health and wellbeing) and SDG 6 (clean water and sanitation).

The project will focus on water harvesting through lined water reservoirs; rehabilitation of some 20 dug wells is also planned through brick-lining, capping and installation of hand pumps. The water extracted will be collected in covered tanks and then distributed through channels for household use, kitchen gardening, and troughs for the livestock.

Formation of CBOs to facilitate WASH training and skills, especially to the village women, is an integral part of the project. It envisages lessening the burden of water carrying by women, by making it more accessible to them.

The IET is a Pakistan-based not-for-profit organization working in the area of sustainable development since the year 2000. It has six programme areas – livelihood and enterprise development, water and community physical infrastructure, alternative energy solutions, indigenous housing systems, food security and drought mitigation and climate change adaptation. The IET has worked in Sindh and Balochistan.

07/05/2017 online at: <https://www.pakistantoday.com.pk/2017/05/07/kohistan-to-get-rs19m-drinking-water-project-soon/>

Pakistani farmers say India not complying with Indus Water Treaty, want UN, US to intervene

Addressing a press conference in Lahore, a farmers' group in Pakistan has urged the United Nations (UN), the United States and the World Bank to ensure non-stop supply of water to Pakistan under the Indus Waters Treaty (IWT).

Central leaders of the Pakistan Mutahidda Kissan Mehaz (PMKM) underscored that fair distribution of water between India and Pakistan had immense importance not only for the survival and livelihood of people, but also for peace in this region.

Construction of several water and power projects on Indus, Jhelum and Chenab rivers by India were a serious threat to river flows towards Pakistan, a lower riparian state.

They said farmers from across the country would gather in Islamabad on October 19 to lodge their protest on what they termed India's failure to comply with the Indus Waters Treaty.

The farmers claimed that that Indian hegemonic policy in South Asia had resulted in a squeezing of water supplies to Pakistan from western rivers.

They said it was unfortunate that India had openly threatened to stop flow of the rivers and that a series of dams and hydropower projects have been planned or already been constructed on Western rivers allotted to Pakistan under the Indus Waters Treaty.

The farmers stated such huge infrastructure can be manipulated to restrict flows of river towards Pakistan. The stance of the Indian leadership is aggressive as far as the flow of western rivers was concerned, PMKM leaders said.

08/05/2017 online at: <http://indiatoday.intoday.in/story/pakistani-farmers-say-india-not-complying-with-indus-water-treaty/1/948377.html>