

ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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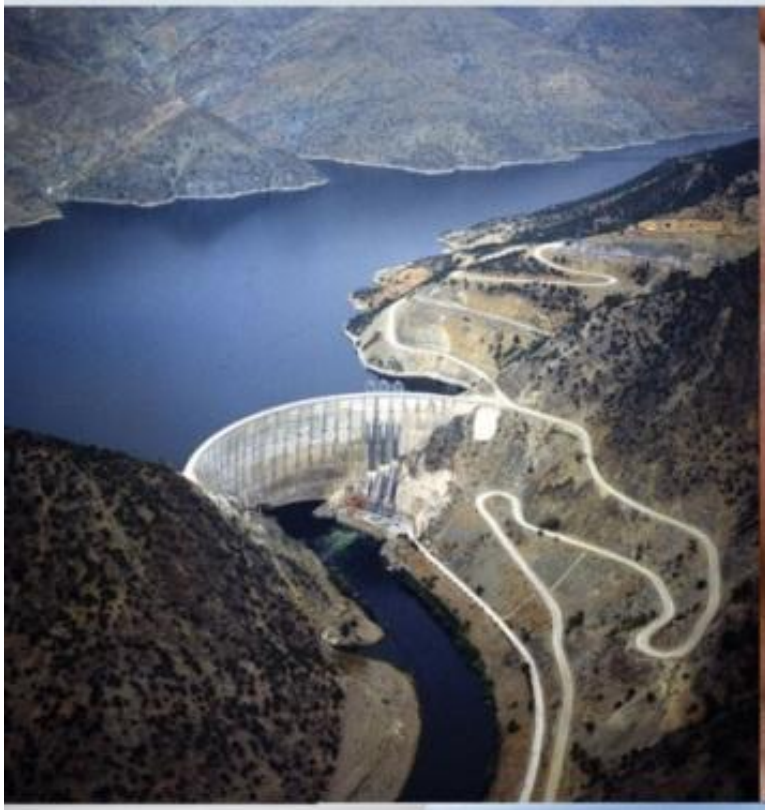



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07 March 2017 – 13 March 2017

Iraqi forces capture village, major water station near western Mosul's Tigris bank

Iraqi forces on Saturday became in control over a major water station and a village near the western bank of the Tigris River as fights rage on against Islamic State in the western side of Mosul.

Lt. Gen. Abdul-Amir Yarallah, commander of the Joint Operations Command's battles in Nineveh, said the army's 16th division liberated the Khawaja Khalil village as well as the "grand water project" which feeds the eastern region which the government recaptured in January.

The Iraqi government launched a major offensive in February to retake western Mosul from Islamic State militants. The government forces recaptured the eastern side of the city late January after three months of fighting.

In the western region, Iraqi forces have made remarkable gains, taking over a government complex last week that hosts the governor's office, a main central bank branch, a police department, a courthouse and other public facilities. The forces had earlier retaken the city's airport and biggest military camp. Troops moved earlier on Saturday towards the Old City, a major target in the combat plan.

The army's Counter-Terrorism Service said last week government forces had become in control over 60 percent of the western side. Generals from the Iraqi side and the allied U.S.-led coalition had estimated six months needed to fully liberate the city which fell to the extremist group in 2014.

11/03/2017 online at: http://www.iraqinews.com/iraq-war/iraqi-forces-capture-village-major-water-station-near-western-mosuls-tigris-bank/

Syrian army captures crucial water station

The Syrian army and its allies have captured the main water pumping station that supplies Aleppo in a sweeping advance against Daesh (ISIS) that has brought them to the bank of the Euphrates, an activist group and state media said Tuesday.

The Syrian Observatory for Human Rights said the army and allied forces made rapid gains east of Aleppo city, as Syrian and Russian planes pounded the rural areas.

A military media unit runs by the Lebanese group Hezbollah also quoted a military source as saying the army had advanced and regained the Al-Khafsa area.

The source said regime forces also captured 14 towns west of Al-Khafsa, including Al-Rayhana, Kherbat Shhab, Al-Tabara and Thakhira, in Aleppo's eastern countryside.

They recaptured the Al-Khafsa area on the western bank of the Euphrates River, where the water treatment and pumping plants are located, after the militant group withdrew the Observatory said.

Aleppo’s main water supply has been cut off for nearly two months, and the city’s residents now rely mainly on ground wells or water purchased from private vendors.

08/03/2017 online at: http://www.dailystar.com.lb/News/Middle-East/2017/Mar-08/396568-syrian-army-captures-crucial-water-station.ashx

Sea of Galilee water level lowest in a century

The lake where Christians believe Jesus walked on water has declined to its lowest level in a hundred years, an Israeli official said Tuesday.

The Sea of Galilee, which is actually a lake, has suffered from four consecutive years of rain shortages, Amir Givati of Israel's Water Authority told military radio.

"The situation is serious," he said. "The lake has fallen to its lowest level for a century."

The level is 20 centimeters below what experts consider acceptable, the so-called "red line," he added.

The "regional drought affects the whole of the Middle East," Givati added.

The shortage of rainfall is affecting agriculture, the environment and animal life in the nearby area, he added.

The rest of Israel is spared from shortages thanks to five seawater desalination plants built along the Mediterranean coast.

They pump water through a pipeline system to homes throughout the country except for an area in northern Israel that is supposed to be supplied by the Sea of Galilee.

"A project to supply this entire part of northern Israel is under consideration. It is a challenge for the years to come," Givati added.

Three-quarters of the drinking water consumed by Israeli households comes from these desalination plants.

The Sea of Galilee covers roughly 160 square kilometres (62 square miles) and is located 200 metres (656 feet) below sea level.

It is also an important Christian and Jewish pilgrimage site.

Christians believe the lake to be the site of a number of Jesus's miracles, including walking on water.

07/03/2017 online at: http://middle-east-online.com/english/?id=81911

Jordan can reduce agricultural water use by a third, research finds

An analysis on water and food security in Jordan indicated that there is potential for policies that reduce agricultural water needs, while still maintaining current levels of crop production.

The research is part of a project funded by the British Council and led by researchers at the University of Oxford's Institute for Science, Innovation and Society, in partnership with the WANA Institute and EcoPeace.

The report said that while Jordan has already demonstrated considerable gains in agricultural water productivity, there is potential for further progress.

Focusing on ways to increase water productivity in the Kingdom, the research studied how other countries managed to increase their agricultural production without putting too much pressure on water resources, while exploring the potential for these methods to be applied in Jordan and Palestine.

The findings were shared on Tuesday during a session tackling new opportunities for Jordanian water security. Organizers noted that while the agriculture sector consumes the majority of water resources, its contribution to gross domestic product is low compared to other sectors.

Through the study of the Kingdom's food import trends, the research suggested the possibility of strategically increasing imports of certain crops, without significantly impacting Jordan's food security.

Researchers used data on agricultural production and water application to assess, as national averages, water needs per one tone of food production, looking at 14 key crops including bananas, dates, olives and tomatoes, according to Michael Gilmont from Oxford University.

'Jordan could reduce its agricultural water use by up to 36 per cent. With efficiency alone and without reducing crop production, Jordan can reduce agricultural water use by 27 per cent,' according to the findings.

The analysis also showed that the current targets for treated-wastewater use in agriculture are approaching levels of regional best practices.

According to Water Ministry figures, the country's 27 wastewater treatment plants treat 122 million cubic meters (mcm) of water per year; 115mcm of which are used for industrial purposes and the irrigation of certain crops, such as fodder.

Awni Kloub, director of Water Demand Management at the ministry, said the sector faces multiple challenges, including water scarcity in Jordan and decreasing rainfall, on which the Kingdom primarily relies, as well as the inefficiency of irrigation systems.

Another major challenge the water sector is facing is the rising cost of electricity.

'Electricity costs makes up around 50-60 per cent of the cost of one cubic metre of water that reaches consumers. Fourteen per cent of the country's energy bill is paid by the Water Ministry,' Kloub said at the session.

He added that improving the efficiency of irrigation systems and better water management are vital to ensure the sustainability of the Kingdom's depleting water resources.

Stakeholders in the project said that the report's recommendations could form an important part of efforts to develop and improve Jordanian water security and economic opportunities.

08/03/2017 online at: http://menafn.com/1095299389/Jordan-can-reduce-agricultural-water-use-by-a-third-research-finds

Mobilizing Private-Sector Investment to Transform Jordan's Water System

Jordan is one of the driest, most water poor countries in the world, and population growth has put a strain on the country's already limited water resources and aging infrastructure.

The As-Samra Wastewater Treatment Plant is the primary facility for treating wastewater from Jordan's Amman and Zarqa Governorates, home to about 5 million people, but it was already nearing operational capacity. The plant was initially completed in 2008 with support from the U.S. Agency for International Development, and the Government of Jordan needed an innovative solution to fund the plant's expansion to provide clean water for its growing population.

As part of the MCC-Jordan Compact, the agency provided $93 million to help the Government of Jordan finance the expansion of the As-Samra Wastewater Treatment Plant, which treats 70 percent of the nation's wastewater. MCC's investment helped mobilize an additional $110 million from the private sector and $20 million from the Government of Jordan.

The MCC-Jordan Compact, launched in 2011, provided $93 million to help the Government of Jordan finance the As-Samra expansion. The agency's investment helped mobilize an additional $110 million from the private sector and $20 million from the Jordanian Government, representing MCC's first large-scale public-private partnership in infrastructure. The plant expansion began in 2012, and it became operational in 2015.

The project was financed through a structure known as build-operate-transfer, a type of public-private partnership in which the government delegates the responsibilities of financing, designing, building, operating and maintaining facilities to a private-sector entity for a set amount of time. In the case of As-Samra, the private company was the Samra Wastewater Treatment Plant Company Limited (SPC), whose international investors include Morganti, a U.S. affiliate of the Greece-based Consolidated Contractors Group; Infilco Degremont, a U.S. affiliate of the France-based Suez Environment; and Suez Environment. These investors and a syndicate of local Jordanian banks and financial institutions, led by the Arab Bank, were the project's private-sector financiers. SPC will operate and maintain the As-Samra plant until 2037, when it will be transferred back to the Government of Jordan.

Upon completion, capacity at the As-Samra plant was increased by one-third, and the facility now treats 70 percent of the nation's wastewater. More high-quality treated water is now

available to farmers for irrigation in the Jordan Valley, which frees up fresh drinking water for households and businesses across Jordan. The plant's production of 78 percent of its energy requirements, through biogas and hydropower, and improved sludge management practices, make it one of the most modern and environmentally friendly treatment plants in the Middle East.

Public-private partnerships play an important role in helping MCC achieve its mission of reducing poverty through economic growth. With limited foreign assistance available, governments around the world are looking for opportunities to partner with the private sector to supply water, sanitation, transportation, power, public health and other much-needed services.

In Jordan, the public-private partnership financing structure multiplies MCC's investment impact and furthers the project's sustainability. The partnership has helped make the Jordan Compact one of MCC's most successful — transforming a key element of Jordan's water sector on time and under budget. The innovative approach will serve as a model as MCC works with its partner countries to mobilize and attract the capital, expertise and efficiency of the private sector to deliver high-quality, affordable and sustainable development outcomes.

12/03/2017 online at: http://www.military-technologies.net/2017/03/12/mobilizing-private-sector-investment-to-transform-jordans-water-system-2/

Saudi Arabia invites advisory bids for major independent water projects

Two desalination plants will have a total capacity of 830,000 cubic metres a day

State desalination provides Saline Water Conversion Corporation (SWCC) has invited consultants to submit proposals for two major planned desalination projects.

The state utility has invited consultants to submit proposals for financial, legal and technical advisory roles on a planned 450,000 cubic meters a day (cm/d) Yanbu facility and a 380,000 cm/d project planned at Shuqaiq.

The client has set a deadline of 22 March for proposals.

The projects are two of eight planned independent water projects (IWPs) or independent water & power projects (IWPPs) planned to be developed in the kingdom up to 2025.

MEED recently reported that SWCC had appointed advisers for the planned 600,000 cm/d Rabigh 3 IWP. The lead adviser is the local Banque Saudi Fransi. The client has appointed Germany's Fichtner Engineering and Consulting as the technical adviser, the UK's DLA Piper as legal adviser and the UK's Alderbrook as financial adviser.

The client had originally been planning to tender and award a standard engineering, procurement and construction (EPC) contract to develop the Rabigh 3 plant. MEED reported in late 2015 that SWCC was planning to issue tender documents for the EPC deal by February 2016. However, as with the vast majority of the kingdom's major upcoming utilities project,

the plant will now be delivered through a public-private partnership (PPP) model as the kingdom seeks to reduce pressure on capital expenditure caused by lower oil revenues.

SWCC is increasing the role of private investment in the desalination sector as part of the kingdom's Vision 2030. It is also preparing to privatize existing assets. SWCC forecasts it needs to increase the current desalination capacity of 5.1 million cm/d to 7.3 million cm/d by 2020 to meet growing demand.

07/03/2017 online at: https://www.meed.com/news/editors-choice/saudi-arabia-invites-advisory-bids-for-major-independent-water-projects/5013442.article

Man-Made River Authority calls for protecting water facilities

The Man-Made River Authority MMRA has called state authorities to shoulder their responsibilities and protect Libyan people's resources following sabotage attacks on water pipelines.

The MMRA warned about the continuing attacks on water stations and pipelines, which could endanger Libyan people's water resources. On March 05, unknown gunmen exploded water station 368 in Hasawna, Jafara, which cut water supply to some of the country's western towns.

0/03/2017 online at: https://www.libyaobserver.ly/inbrief/man-made-river-authority-calls-protecting-water-facilities

Growth, Self-Reliance Linked to Water Resources: Officials

Afghanistan has the capacity of using only 36 percent of its water and rest is flowing into neighboring countries.

The Ministry of Energy and Water (MoWE) on Tuesday said that it has considered a number of programs for better management of country's water resources as it has major implications for the national development and economic prosperity.

"We cannot contemplate defeat in the preservation of our water resources. If we lose and waste our water resources, then there will no opportunity to retrieve it," said minister of energy and water Ali Ahmad Osmani.

CEO Abdullah Abdullah has also stressed the need for better management of water resources in the country to guarantee Afghanistan's development in the future.

"If the necessary attention is paid to water management, we can guarantee the future of our country, the future of next generations, our children and future builders," said CEO Abdullah Abdullah.

Afghanistan has major water resources but the country is not using its water effectively. The country has the capacity of using only 36 percent of its water and rest is flowing into neighboring countries.

The scale of surface water in Afghanistan is estimated at 49 billion cubic meters with 18 billion cubic meter of underground water.

Economic experts say that water management in the country could help Afghanistan to leverage its economic programs and boost the agriculture sector, saying this would also help Afghanistan to be self-reliant.

More than 3.5 million hectors of land which are suitable for agriculture are not utilized today.

“If we adopt the best management practices of our water resources, this will help us to get self-reliance. We can also reach a deal with our neighbors about the waters we have,” said minister of agriculture and irrigation Assadullah Zamir.

Iran, Pakistan, Uzbekistan and Turkmenistan are among the key neighbors of Afghanistan who get a lot of advantage from five river basins in Afghanistan.

“So far there is no an agreement with other countries about the water resources of Afghanistan. There should be an agreement in this respect and negotiations must start to achieve this. These agreements should not be signed for a long term basis, they should be for a twenty- or thirty-year period,” said economic expert Qais Mohammadi.

President Ashraf Ghani said on Thursday at the National Land Conference in Kabul that Afghanistan's socioeconomic stability and future development was directly linked with focused management of land and water resources.

Participants at the conference asked the Afghan government to review water policy and laws, establish more dams to control the waters and further develop water basins.

07/03/2017 online at: http://www.tolonews.com/business/growth-self-reliance-linked-water-resources-officials

Pakistan, India agree to resume Indus water talks

India has agreed to resume stalled talks on resolving a water dispute with Pakistan, a Pakistani official said Thursday.

New Dehli suspended negotiations over the Indus Waters Treaty following an attack by Kashmiri militants that killed 19 Indian soldiers last September.

Foreign Ministry spokesman Nafees Zakaria said the postponed annual meeting between the countries’ water commissioners would be held later this month in Lahore.

“It seems… India is finally realizing the importance of the mechanism under the Indus Waters Treaty for resolving the water disputes related to the Indus river and its tributaries,” Zakaria said.

Broadcaster Sama TV quoted an unnamed senior foreign ministry official as saying the talks would be held on March 20 and 21.

The 1960 treaty grants control of the eastern Sutlej, Beas and Ravi rivers to India while the western Indus, Jhelum and Chenab rivers fall under Pakistani control.

However, Pakistan has repeatedly accused India of violating the World Bank-brokered treaty by building dams on the western rivers, which all flow through Indian territory before reaching Pakistan.

India has complained that Pakistan benefits from a greater volume of water under the agreement.

Following the September attack, Indian Prime Minister Narendra Modi threatened to scrap the treaty and Pakistan warned that such a move would amount to a declaration of war.

09/03/2017 online at: http://aa.com.tr/en/asia-pacific/pakistan-india-agree-to-resume-indus-water-talks/767367

Water: India victimizes Pakistan

Since its inception, India has never missed an opportunity to victimise Pakistan by creating deliberate water scarcity with the aim to damage the latter agriculturally. Indian extremist Prime Minister Narendra Modi who has given the concerned departments to continue construction of dams has ordered diverting water of Chenab River to Beas, which is a serious violation of the Indus Water Treaty (IWT) of 1960. Therefore Pak-India water issue has accelerated.

Taking cognizance of India's diplomacy against Pakistan, a seminar on the subject "Hydro Politics around Pakistan: Reassessing: The Efficacy of Indus Water Treaty (IWT)" was organized by the National Defense University (NDU), Islamabad on January 17, 2017. Gen. Rizwan Akhtar (Former DG ISI), the President NDU, including other experts on the subject highlighted the significance of IWT and the need for deliberations on the subject to find out a viable solution of the problem.

Gen Muzammil Hussain (R), (Chairman WAPDA) said that the subject of IWT is very important for the country. He, however, was unhappy to find out that not a single representative had come from Ministry of Foreign Affairs and even from WAPDA to attend this important seminar. Dr Zaigham Habib, while talking on "Hydro Hegemony in South Asia and Implications for Pakistan" regarded India as a Hydro-Hegemon stated, "neighbours view India with suspicion; it is difficult to conduct discussion on common-interest issues with her in good faith. India's insistence on secrecy about hydrological data contributes to the distrust within the region. Timely and adequate information is never fully given to Pakistan, Bangladesh and others on water data and on National River Linking Projects."

Mirza Asif Baig, Pakistan's Commissioner for Indus Waters, dilated on the "Efficacy of The Indus Waters Treaty". He mostly talked on the technicalities of the treaty and did not show any concern about the violations of treaty already being carried out by India.

Suleman Najib Khan regarded Indus Waters Treaty signed at Karachi a seriously flawed treaty, which did not serve Pakistan's interests. He was very critical about the role and efficacy of Indus Water Commission. He was of the view that all the chairmen's have failed to guard the interests of Pakistan, they neither have expertise nor the will to contribute positively. He highlighted the urgent need of making reservoirs on River Indus, including Kala Bagh Dam (KBD), to save the country from starvation in the near future. He, however, was opposed to Bhasha dam on purely technical grounds. He informed the audience that Kabul River contributes around 20-25 % to Indus River water, especially in winters. India is pursuing Afghanistan to build multiple dams on Kabul River which would further deprive Pakistan of much needed water. He was of the view that Pakistan should also get into some treaty with Afghanistan regarding continuous flow of River Kabul water.

He further stated that propaganda against KBD was deliberately launched to crate conviction in the locals that the natural drainages of Peshawar & Kohat valleys, which will be blocked as a result of back pressure from the KBD reservoir. Similarly, propaganda was also launched that the KBD reservoir will create water logging in Mardan, Charsada, Swabi, Pabbi, and Nowshera, despite all of them being higher than 915 feet from seal level. In Sindh, the propaganda was launched that KBD would restrict water supply to Sindh resulting into vanishing of Mangroves and intrusion of sea water. As a matter of fact, Sindh uses five times more irrigation water than Punjab. Flood irrigation on a 14 km wide strip keeps both the Pirs and Waderas happy and prosperous that's why they do not want this water to be regulated.

Ahmer Bilal Soofi, Advocate Supreme Court, President Research Society of International Law, Former Federal Minister for Law, Justice and Parliamentary Affairs and President WWF Pakistan spoke on "IWT and International Law: Options for Pakistan". The main points of his discourse were as follows:- The IWT cannot be unilaterally terminated, according to Article 12 (4) of IWT; only a new treaty drafted and mutually ratified by both India and Pakistan can only replace existing treaty.

There is no provision which expressly authorizes India to construct a certain number of dams. Neither is there one which prohibits India from making dams beyond a certain number. Clearly, therefore, the number of dams that India wishes to construct on the Western Rivers is an issue outside the scope of the treaty. IWC does not possess lawyers to contest its case at international level. He suggested that IWC must have a pool of good and qualified lawyers, specialized in international laws.

13/03/2017 online at: http://pakobserver.net/water-india-victimises-pakistan/

UN agriculture agency warns of water scarcity in North Africa and Near East

Accessible fresh water in North Africa and the Middle East has fallen by two-thirds over the past 40 years, posing a huge challenge requiring "an urgent and massive response," the head of the United Nations agriculture agency said today.

Access to water is a fundamental need for food security, human health and agriculture, and sustainable water use for agriculture requires transforming food systems and diets, said Jose

Graziano da Silva, the Director-General of the Food and Agriculture Organization (FAO), in a news release on his visit to Egypt.

Per capita availability of fresh water in the region is now 10 times less than the world average, he said, underscoring the need for a significant overhaul of farming systems.

A recent FAO study showed that higher temperatures may shorten growing seasons in the region by 18 days and reduce agricultural yields a further 27 per cent to 55 per cent less by the end of this century.

The rising sea level in the Nile Delta is exposing Egypt to the danger of losing substantial parts of the most productive agriculture land due to salinization.

Moreover, “competition between water-usage sectors will only intensify in the future between agriculture, energy, industrial production and household needs,” he said.

Mr. Graziano da Silva attended a high-level meeting on FAO's collaboration with Egypt on the C.5 million feddan initiative,' the Government's plan to reclaim eventually up to two million hectares of desert land for agricultural and other uses.

Policy advice and best practice ideas on the governance of irrigation schemes is a key offering in FAO's Near East and North Africa Water Scarcity Initiative, backed now by a network of more than 30 national and international organizations.

The initiative has gained momentum, buoyed by its endorsement by the League of Arab States as well as donor support, Mr. Graziano da Silva said, noting that urgent actions supporting it include measures aimed at reducing food loss and waste and bolstering the resilience of smallholders and family farmers.

09/03/2017 online at:

http://www.un.org/apps/news/story.asp?NewsID=56326#.WMZTp2_yjcs

‘Water, water, everywhere, nor any drop to drink’

A sad fact of life in the Middle East is that, unlike Samuel T. Coleridge’s Ancient Mariner, we do not have water, water everywhere. With the single exception of Lebanon, all Middle Eastern countries suffer from acute water shortages on at least 80 per cent of their territories.

Most of the Arab Middle East concentrates the vast majority of its population along the thin river basins, where they exist, or on the sites of ancient oases, where people wasted no time in exhausting the already meagre subterranean reserves.

We can say that we have progressed to the point where we acknowledge the existence of a problem, which is better than we do with regard to most other problems; but what are we doing about this serious threat to our existence?

One thing we do is to frequently cite the Koranic verse: “And we made from water every living thing.”

Faith is indeed a very good thing, but it is the same faith that enjoins us to: “Tether your camel then trust God” not to let it go astray.

So what steps are we in the glorious Arab nation taking to “tether our camel”, meaning to find practical solutions to our acute water problems?

The answer, lamentably, is not a great deal.

Research and development (R&D) spending in Arab countries is on average $156 per capita, with the exception of the UAE and Qatar, where it is about $470 and $700 respectively.

This is not the budget on water research, but the total annual budget per capita.

Seriously, $150 is not a serious R&D budget, when compared with the R&D spending per capita of $1,440 in the US and $1,400 in Japan.

Much to our embarrassment, the only country in the Middle East that takes R&D seriously is Israel, with a per capita spending of about $1,360.

My intention is not to involve myself in the interminable debate on the Arab-Israeli conflict. Merely to highlight how they have acted to solve the problem that faced them as it faces us.

In 2009, the UN, in a report issued on International Water Day, named Israel the world’s most efficient recycled water user.

Israel reuses almost 70 per cent of its waste water each year for agriculture, and much of the leftover sewage water is reused for other purposes.

To put this point in greater perspective, the second most efficient recycled water user — Spain — recycles 12 per cent of its waste water for agriculture.

Research and development is not a purely esoteric pursuit. Because of Israel’s large investment in water reclamation research, in 2008 there were 200 companies exporting $1.4 billion worth of water management, recycling and purification, irrigation, desalination and safety technologies to over 100 countries.

Think what an impact an income of $1.4 billion a year would have on the economy of Jordan.

We do not lack brains, money or motivation, but merely the gumption to roll up our sleeves and work to solve our problems.

12/03/2017 online at: http://www.jordantimes.com/opinion/ali-kassay/water-water-everywhere-nor-any%C2%A0drop-drink%E2%80%99