

ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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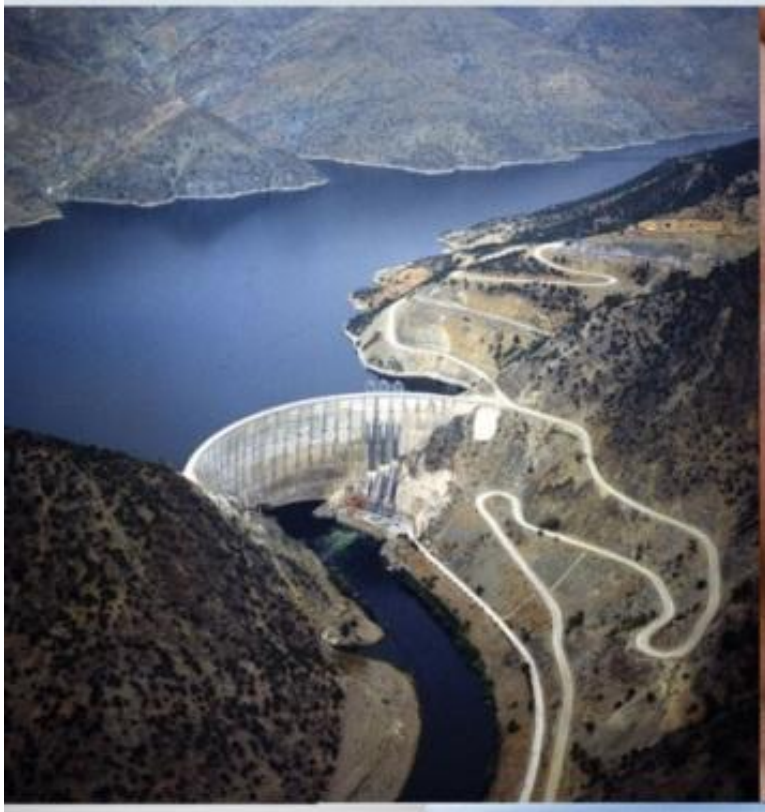



ORSAM WATER BULLETIN

19 December 2017 - 25 December 2017

‘Water diplomacy’ essential for West Asia, Iran says

Iranian Deputy Foreign Minister Abbas Araqchi said on Tuesday that “water diplomacy” is the most important necessity in water-hungry West Asia and this should be dealt with as a “security” issue.

“Issues related to water and environment in West Asia should be studied within the framework of security and considered as diplomacy,” the top diplomat said during a speech at a conference on environment.

He noted that water has turned into a “strategic commodity” in West Asia and should be dealt with in a strategic way.

The deputy foreign minister for legal and international affairs called water shortage as the “most serious problem” in the region.

“Countries like Jordan, Syria, Yemen, Iraq and our country face the crisis of water shortage which will worsen in the future,” he predicted.

Araqchi, who was a key negotiator in crafting the 2015 international nuclear deal with great powers and the European Union, added that water shortage is a crisis which could lead to “conflicts”.

The regional countries should cooperate to tackle the crisis, he noted.

The diplomat said repeated droughts, lack of budget to construct dams, failure to manage natural resources properly and increase in immigration are some of the reasons behind the water crisis in the region.

He also warned about environmental consequences of water shortage.

In recent years, Iran has been frequently hit by heavy dust storms, mostly originating from Iraq, Syria and Saudi Arabia. The storms have repeatedly forced a closure of schools and even disrupting the daily life of citizens in big cities such as Ahvaz, the capital of Khuzestan province in southwestern Iran.

19/12/2017 online at: http://www.tehrantimes.com/news/419515/Water-diplomacy-essential-for-West-Asia-Iran-says

Water sources are drying up/ air pollution pose great risk in Iran

According to the microphone news agency (MHA), the environmental situation in Iran continues to be confronted with severe issues such as the drying of the Urmia Lake, Khuzestan’s emergency water supplies, the severe air pollution of the cities and storms, Officials and experts say.

Mohammadreza Shamsaee, head of water and power in Khuzestan province, said Khuzestan's water resources are in the emergency situation and there is no water resource in the province except of Karkheh River.

Behrooz Sari Saraf, director of the Department of Climatology and Professor of Climatology at the University of Tabriz, has stated that more than 90% of the Lake Urmia has dried up.

The steep winds that began in most parts of Ardebil province since Friday have continued to cause air pollution, increased dust concentrations and traffic congestion on public roads. Mansour Rahmanian, head of the Alborz Meteorological Bureau, announced the increase in atmospheric pollutants by the end of this week.

Reza Esmaeili, director of Mashhad Environmental Monitoring Center, said that Mashhad air quality was in unhealthy condition. The Air Pollution Monitoring Center of Tehran province has identified the air pollution index of Iran's capital of 108 in an unhealthy state.

In recent decades, Iran has been suffering from a number of chronic or severe environmental problems. Many of these issues have now become a crisis due to inefficiency, neglect, financial corruption, and discriminatory policies of the rulers, Has suffered hardship and hardship.

24/12/2017 online at: https://www.mikrofonnews.com/en/water-sources-are-drying-up-air-pollution-pose-great-risk-in-iran/

Sinking kinneret to get infusion of desalinated water

Israel is preparing to pump desalinated water into the Lake Kinneret (Sea of Galilee). The state's Water Authority recently started work on the $300 million project, which will take about two years to complete, Israel's Channel 2 news reported Monday.

With Israel apparently approaching a fifth-consecutive dry year, the Kinneret has dropped to dangerously low levels. This has increased the lake's salinity and harmed the quality of the water, which constitutes a quarter of Israel's potable supply.

The Water Authority is also overseeing projects to pump out saltwater from the lake in order to maintain its potability. The authority says it is extracting about 17,000 tons of salt each year.

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."

The project could lead to a rise in national water tariffs.

19/12/2017 online at: http://www.jpost.com/Israel-News/Sinking-Kinneret-to-get-infusion-of-desalinated-water-518501

UAWC holds workshop on water reality in Salfit

The Union of Agricultural Work Committees held a workshop titled “the water reality of Salfit, challenges and horizons”, in cooperation with the Municipality of Salfit, to maintain water resources and facilitate access to it.

Forty representatives of all members in the water sector in Salfit and the Palestinian Water Authority attended the workshop.

Engineer Majed Nasser, head of the programs and projects departments at the UAWC, Salfit’s mayor engineer Abed al-Karim Zubeidi and “Khaima” of the Fundacion Promocion Social (Spanish Social Advertisement Institution).

Speakers pointed out the importance of cooperation between all parties to promote the water sector that is considered the base of the conflict with the Israeli occupation aside from the land.

Engineer Omar Zayid from the Water Authority clarified that the nature of the water crisis that the water sector in the West Bank and the Gaza Strip is facing and the extent of the Israeli dominance over the sector condemning that the occupation does not allow digging artesian wells in the Salfit district that lies over a big water zone.

The Palestinian Ministry of Agriculture, represented by engineer Labib Obeid, spoke of the agricultural water and the importance of expanding the agricultural zone in the district.

Engineer Saleh Affaneh from the Municipality of Salfit spoke of the water crisis that the district suffers from, especially that the infrastructure of water networks in Salfit goes through areas under Israeli control which obstructs maintenance to these networks, therefore increases the amount of lost water due to damaged networks.

Environmental specialist Ashraf Zuhd spoke of environmental pollution that is caused by Israeli ordnance pointing out that the district faces two types of pollution; one caused by the largest Israeli industrial zone in the West Bank the “Barkan settlement”, and the second is caused by sewage water.

Engineer Muhammad Mutawe of the UAWC spoke of the civil institutions’ role of promoting and managing the water sector in Palestine.

Recommendations were taken then, which all agreed on the importance of joining efforts of private and public institutions to promote and develop the water sector in Palestine.

These activities come under the frame of a project for improving the living conditions of small-scale farmers in Salfit by facilitating their access to water resources in the district; the project is funded by the Municipality of Madrid and is executed by the UAWC and the Fundacion Promocion Socialand in cooperation with the Palestinian Ministry of Agricutlure and the Salfit Municipality.

19/12/2017 online at: https://www.maannews.com/Content.aspx?id=779652

Water providers in crisis: keep the connection

Millions of people's water needs in the MENA region are currently unmet. In Jordan and Lebanon providers have seen huge jumps in water demand with the arrival of Syrian refugees fleeing conflicts.

Some 655,000 people sought refuge in Jordan and an estimated 1.5 million in Lebanon, but water providers have been able unable to keep up with such large increases in demand. They were already struggling to serve communities before the crisis. Now, they are even further behind.

One of the reasons for this is the poor relations that utilities have with those they serve.

NGOs have been providing support by filling the gap in water provision, mostly focused on responding to the immediate needs in refugee camps.

Impressive challenges have been overcome, such as in the gigantic Za'atari camp in Jordan, but projects also needs to take a strategic approach to targeting those in urban areas.

About 80% of Syrian refugees actually live outside camps, in towns and cities next to host populations, where they can be harder to reach.

The word "community" rarely refers to a homogenous unit, all with similar needs; and in the rapidly changing MENA region this is truer than ever. Movements of people fleeing conflicts across the region have resulted in increasing social diversity among communities.

The challenge for water companies is to understand better these social complexities, so that they can better engage with those they serve, and ultimately meet demand from millions of people across the region.

In 2016/2017 WSUP Advisory led a joint research project with IIED and UNICEF on resilience mechanisms for water service provision in the Middle East and North Africa (MENA) region.

The research identified 12 ways in which service provision can improve in the region, and this blog discusses one of them: community engagement.

In our report, entitled Water, crises and conflict in MENA: how can service providers improve their resilience?, we argue that a first step forward is for utilities and their customers to communicate more effectively with each other.

The issue is double-sided.

On the one hand water providers have seen their financial and operating capacity decrease because of inadequate revenue collection or due to their inability to reach communities with service provision.

Insufficient data and lack of understanding of communities (their location, consumption, affordability) is a common cause.

On the other hand people are receiving a poor quality of service, with irregular supplies and poor coverage resulting in people having to rely on alternative sources of water provision. Dry taps and inappropriate tariffs increase people's frustration with utilities, resulting in the non-payment of bills or even vandalism.

On each side of the connection resentment grows.

In WSUP's experience a key characteristic of well-performing service providers is effective community engagement. Engaging with communities provides crucial benefits:

Helping identify and understand communities' needs recognising that different segments of the population have different needs. This also involves targeting the most vulnerable, including the poor, within both refugee and hosting populations. When done well engaging with communities enables a utility to gather data that can inform decision-making, helping it to improve the services it provides.

Increasing accountability. Establishing relationships between utilities and customers is crucial to ensure transparency, build trust and improve performance.

Providing opportunities for community representation and participation. When participating in decision-making processes, representatives can express the community's multiple voices, while the utility can directly get feedback into where services are needed.

Our research did find evidence of humanitarian and development NGOs working in Jordan and Lebanon to enable utilities' engagement with communities.

Through their joint project in Jordan, Oxfam and Future Pioneers have worked in Al Naqab to improve water provision by building a bridge between people and the water utility.

Home to 60,000 Jordanians and Syrians, Al Naqab is a small but dense city where taps only run once a week, pushing households to conserve water as much as possible or to rely on small vendors, often more expensive. The two NGOs have organised series of workshops with the communities and on several occasions solely with women.

Ruby Assad, Community Developer with local NGO Future Pioneers, said that the workshops have had multiple purposes.

Firstly, to discuss water scarcity and implications for water management. Secondly, to bring the community together and identify unmet needs, thereby providing a platform for discussion. Thirdly, to strengthen relationships between the utility and the community.

Dana Nasereddin, Senior Officer, is in charge of addressing water needs of Jordan hosting communities with Oxfam. She described the way mobilizing community members has enabled raising people's representation:

"Women play a key role in water management at household level. Elected women ambassadors of Al Naqab have become advocates to the utility. With that communication channel, the project aims to raise people's voice in the water governance systems".

Our research found that building better relationships between service providers and consumers can help people gain access to water and utilities to increase their revenue recovery.

Strengthening local networks not only helps decisions about service provision to be made in a more inclusive way, it is also an opportunity for more efficient and sustainable results on the ground.

19/12/2017 online at: https://www.wsup.com/blog/water-providers-in-crisis-keep-the-connection/

AGU participates in Arab Water Forum

The Arabian Gulf University (AGU) has participated in the 4th Arab Water Forum in the Egyptian capital Cairo under the theme "Destiny Sharing, Water Sharing."

Among the participants in the event were Chairman of Arab Water Council Dr. Mahmoud Abu Zeid, Prince Khalid bin Sultan bin Abdulaziz, Secretary General of the Arab League Ahmed Abu Al Gheit and several ministers of foreign affairs, water, agriculture, energy and environment in Arab states as well as officials from Arab, regional and international organizations involved in the water sector.

Representing AGU was Professor Alaa Al Sadiq, Water Subjects Professor in AGU's Postgraduate College, where he discussed five key issues, including water and sustainable development, bonds among water, feed, energy and adaptation with climate change, water type and ecosystems, sustainable solutions for joint water resources and water in science, technology and innovation sector.

On the sideline of the event an exhibition showcasing the most modern innovations in the water sector was held, and another took place for fine arts, animation, photography, short films and sculpture. Professor Al Sadiq said that the forum's sessions have stressed ton the principle of partnership in water and its uses which are established on a sustainable basis to make common use of water without harm.

"Participants in the forum pointed out that there is a severe shortage of per capita water in the Arab countries as 25% of water is extracted from non-traditional resources such as wastewater recycling. The Arab region imports 300 billion cubic meters of virtual water in the form of food and other needs for the population of the Arab world, explaining that the conference discussed a number of areas of conflict in Syria, Iraq, Somalia, Palestine and Gaza as well as the problem in the eastern Nile because of the Grand Ethiopian Renaissance Dam," he added.

24/12/2017 online at: https://www.bna.bh/portal/en/news/817851

Egypt gets $150m from the AfDB to upgrade water treatment plant

In support of the Egyptian Government's efforts to ensure safe living conditions, the African Development Bank has approved financing amounting to US$ 150 million for the expansion of the essential waste-water treatment plant at Abu Rawash in the Giza Governorate. The

funding targets a total treatment capacity of 1.6 million m3/day, intended to benefit over eight million people.

The Board of Directors of the African Development Bank approved the decision to finance the "Sustainable Development of the Abu-Rawash Wastewater Treatment Plant" on Friday, December 15, 2017, with a loan of US$ 100 million from the Bank's market window and US$ 50 million from the Africa Growing Together Fund (China Trust Fund).

The project is a continuation of the Bank's commitment to the water and sanitation sector, said Malinne Blomberg, the African Development Bank's Country Manager in Egypt.

The ongoing Bank-funded expansion of the Gabel Al Asfar wastewater treatment plant on the east side of the Nile is almost complete. Gabel Al Asfar is one of the largest treatment plants in the world and will provide additional treatment capacity for 12.5 million residents of Cairo. The Abu Rawash project on the west side of the Nile is expected to benefit another 8 million people in the broader project area in terms of increased incomes, food security and economic activities. It is expected to create more than 1,200 direct jobs and 4,000 indirect jobs in tourism, agriculture, and fisheries.

The project will reduce health risks through the depollution of the drains and canals; protect the Nile, the environment and the water resource from pollution; and scale up water re-use for agriculture, says Yasser Elwan, Senior Irrigation Engineer at the African Development Bank.

This will be achieved by expanding and upgrading the wastewater treatment plant on the outskirts of Giza, and by engaging the communities in the project area. The project involves upgrading the primary treatment facility of 1.2 million m3/day to also include secondary treatment of wastewater, and expanding the treatment plant's capacity to 1.6 million m3/day of both primary and secondary treatment.

To be implemented over a period of four years at a total cost of US$ 387.44 million, the intervention supports Egypt's Sustainable Development Strategy and 2030 Vision. It contributes to protecting and enhancing the quality and use of the Nile River, a prime strategic resource for the country. It also contributes to the Bank's 'High 5' priority agenda through the development of critical infrastructure that promotes inclusive and green growth, increasing agricultural production and improving the quality of life of the people.

21/12/2017 online at:

http://worldstagegroup.com/index.php?active=news&newscid=41896&catid=3

Egypt FM to Head to Ethiopia after Nile Dam Talks Stall

Egypt's Foreign Minister Sameh Shoukry will visit Addis Ababa next week for talks with his Ethiopian counterpart, a foreign ministry spokesman said, in a bid to end a standoff over a multi-billion dollar dam project on the Nile River.

The dispute, which also involves Sudan, centres on control of a share of the waters of the Nile that stretches 6,695 km from Lake Victoria to the Mediterranean and is the economic lifeblood of all three countries.

Cairo says the dam would threaten water supplies that have fed Egypt's agriculture and economy for thousands of years.

Ethiopia says the Grand Renaissance Dam, which it hopes will help make it Africa's largest power exporter, will have no major effect on Egypt. It accuses Cairo of flexing its political muscle to deter financiers from backing other Ethiopian power projects.

24/12/2017 online at: https://english.almanar.com.lb/413899

Sisi to inaugurate Assiut new water barrages in March: minister

President Abdel Fattah al-Sisi will inaugurate the new Assiut Barrage project in March, said Irrigation Minister Mohamed Abdel Aaty, adding that the president pays particular attention to the development of the governorates of Upper Egypt and the establishment of projects that serve agriculture and irrigation to achieve sustainable development.

Abdel Aaty inspected the project, which contains an electromechanical station, an administrative building and a lock. He met with the leaders of companies executing the project and asked for the collection of the stone pieces that were cut off from the old Assiut water barrages.

The collected stones will be used to make a model of the old barrages at a museum to be established as part of the new barrages project in coordination with the Antiquities Ministry, according to Abdel Aaty.

The minister also witnessed the passage of two fishing boats in two locks established as part of the Assiut new barrages project, which aims to improve irrigation in central Egypt.

25/12/2017 online at: http://www.egyptindependent.com/sisi-inaugurate-assiut-new-water-barrages-march-minister/

All set to inaugurate 5 million gallon desalination plant in Gwadar

Under China Pakistan Economic Corridor (CPEC), a 5 million gallon desalination plant has been established in Gwadar to supply water to the residents of the area.

Water will be supplied at a price of 80 paisa per gallon to the residents of Gwadar.

According to the head of China Port Holding, the inauguration of the plant will take place on 1st January 2018 after which people of Gwadar would be able to easily access clean drinking water.

He also informed that the construction of Expo Centre in Gwadar has been completed and it will be inaugurated on 28th January 2018.

According to reports, inauguration of various other buildings in the Free Zone will also take place sometime in next month.

19/12/2017 online at: https://www.thenews.com.pk/latest/258115-all-set-to-inaugurate-5-million-gallon-desalination-plant-in-gwadar

'National Water Policy' needed to tackle serious threat to Pakistan's supply system

The speakers at a water conference stressed that a comprehensive consensus oriented National Water Policy was the need of the hour to pursue an effective water strategy considering climate change factor which was a serious threat to Pakistan's water supply system.

The inaugural session of 4th International Water Conference on 'Climate Change & Disaster Risk Management for Sustainable Development & Businesses', organized by Riphah Institute of Public Policy a constituent Institute of Riphah International University and Pakistan Council of Research in Water Resources (PCRWR) in collaboration with University of Haripur, Peshawar University, Abasyn University and Saving Humanity Foundation International (SHFINT) from December 19-21, 2017 in Islamabad.

During the course of three days, the conference will highlight critical water issues and challenges and to explore ways and means for integrated water recourse development and management to attain sustainable development through scientifically-sound advice under various themes including; Climate change, water, food & energy security; Disaster risk reduction, safety planning & business continuity; Water scarcity & resource management; Impact of industrial effluents & water quality and Socio-hydrology & Trans-boundary diplomacy and Perspective.

Planning Commission Deputy Chairman Sartaj Aziz who was chief guest at the inaugural session appreciated the unique combination of government, educational and development sectors to highlight the most alarming issue of 'water' and its challenges.

Sartaj apprised the audience about the ongoing projects of government to overcome the water challenges that Pakistan is facing. He appreciated the efforts of Riphah International University, PCRWR and other academic and non-governmental organization in organizing thought provoking session on a challenging issue.

Leading national and International Universities and R&D organizations, Water experts are participating in the conference through 66 scholarly paper presentations.

Dr. Ashraf, Chairman (PCRWR), Prof. Dr. Anis Ahmad, VC Riphah International University, Dr. Abid Fareed, VC University of Haripur, Prof. Dr. Umer Farooq, (VC Abasyn University), Dr. Ejaz Ikram, (Advisor NDU). Dr. Mushtaq Manget, (Secretary General Al Khidmat Foundation Pakistan), Dr. Rashid Aftab (Director Riphah Institute of Public Policy), Dr. Kamran Azam Secretary Conference also addressed the conference.

They were of the view that water is the key element for the socio-economic development of any country and we must not only view sustainability as a problem of science, engineering, or economics; it is also founded on values, ethics, and the equal contributions of different cultures.

The conference deliberations and technical sessions taking the holistic approach to address the water sector of the country which has led to serious issues of; water scarcity, resource depletion and contamination. The uncertainty introduced with climate change has further complicated the scenario. The conference is aimed at addressing water sustainability challenges, from the perspective of access, equity, hazards and policy reforms.

20/12/2017 online at: https://www.thenews.com.pk/print/258452-national-water-policy-needed-to-tackle-serious-threat-to-pakistan-s-supply-system

Climate change: Pakistan needs to increase water storage as population swells

Pakistan badly needs to expand its water storage by 2025 in order to avert looming water crisis and meet expected demand of 165 billion cubic meters, experts have suggested.

Current water storage capacity of Pakistan stands at 10 percent of the annual river flow on average instead of 40 percent, according to the experts who spoke in the inaugural session of a three-day international water conference on 'climate change and disaster risk management for sustainable development and business' on Tuesday.

Terming insufficient storage capacity one of the major reasons behind an increase in extreme weather events like severe flooding and prolonged droughts, experts expressed fears that the situation would get worse in coming years due to lack of storage capacity.

Expressing his view, Planning Commission Deputy Chairman Sartaj Aziz stressed the need to review the water management system to tackle the threat of water shortage in future.

"Figures of the new census reveal that our population growth rate has increased from 2 to 2.4%, creating big challenges of generating more resources to cater to the basic needs, including food and water," Aziz was quoted by the Express Tribune as saying.

He further said the conference – which aims to address water sustainability challenges from the perspectives of access, equity, hazards and policy reforms – would help highlight the most alarming issue of water and related challenges caused by the changing climate.

Aziz also briefed the participants on the projects launched by the government to tackle the water-related issues.

"Climate change has now become a reality and its impact on Pakistan is worsening with each passing day. Under its impact wet seasons in the country are getting wettest and dry ones driest," Pakistan Council of Research in Water Resources (PCRWR) Chairman Muhammad Ashraf said.

The speakers also threw light on the role of water in bringing development and sustainability to the country, adding that an adherent water policy was need of the hour as climate change was not only affecting Pakistan's water supply system but was also posing a threat to the global system.

Pakistan is the 7th most vulnerable country to climate change and its major impact is on water resources.

A report by the Planning Commission of Pakistan, based on data from the Water and Power Development Authority of Pakistan, indicates in 1951 per capita water availability was 5,650 cubic metres.

By 2010, that figure shrank to 1,000 cubic metres and it is set to fall to 800 cubic metres by 2025, when Pakistan's population is expected to rise to 221 million, the report said.

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

21/12/2017 online at: https://en.dailypakistan.com.pk/pakistan/climate-change-pakistan-needs-to-increase-water-storage-as-population-swells/

Water scarcity predicted to worsen

The Arab Middle East will potentially be challenged by increased droughts and severe water shortages.

These projections were made by the Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR), which recently launched the Arab Climate Change Assessment Report1 – a comprehensive assessment of the environmental and socioeconomic impact of climate change on the Arab States.

Droughts and water scarcity have been linked to increasing temperatures. For instance, the eastern areas of the Middle East — Egypt, Djibouti, and parts of the Arabian Peninsula — have shown a consistent drying trend during the past 30 years1 2 .

Compared to the period between 1985 and 2005, temperatures are predicted to increase by 5ºC in parts of the Middle East by the end of the century, with the highest temperature increases projected for the western inland parts around the Tindouf basin. The number of very hot days (with temperatures over 40ºC) are also projected to significantly increase across the region until the end of the century.1

"Unstable rainfall patterns also increases the frequency and intensity of drought."

Temperature rises can be attributed to increasing greenhouse gas emissions. In 2012, the CO2 emissions of the member states of the United Nations Economic and Social Commission for Western Asia (ESCWA), totalled 1,445 million tons, which had increased by approximately 5.8% since 2011 and 19% since 20053. ESCWA member states include the Palestinian

territories, Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Yemen, the United Arab Emirates and Saudi Arabia. The average CO2 emissions per capita of the ESCWA States reached 4.9 tons in 2010, compared to a worldwide average of 4.5 tons per capita3.

Ibrahim Hoteit, associate professor of Earth science and engineering at KAUST, tells Nature Middle East that, climate change could also impact wind pressure systems, like the sub-tropical westerly jet, although this remains to be validated with further research. This could consequently shift rainfall patterns, compounding the acute water crisis in the Middle East.

Already, the annual number of days with precipitation exceeding 10 mm significantly decreased between 1986–2008, when averaged over the whole Arabian Peninsula region4.

Andries de Vries, professor of atmospheric chemistry at the Max-Planck Institute for Chemistry, highlights the importance of gathering more data from many stations, rather than analyzing the region as a whole.

Several studies particularly project decreases in precipitation levels in the upper Euphrates and Tigris rivers, which will ultimately affect river flow towards the marshlands5. It is expected that, by 2025, water flow will decrease by more than 50% and 25% in the Euphrates and Tigris, respectively6.

The western part of the region (Algeria, Morocco, and Mauritania), however, showed a consistent tendency towards wetter conditions during the past 30 years1. Further, rainfall in the southern part of the Arabian Peninsula and along the coast of the Red Sea increased during 2000–2009, compared to 1980–19893 7.

The water from these rain showers can be beneficial for replenishing fresh water sources. However, increasingly, more of the region's precipitation is falling in a single, large events, rather than a series of small ones. This leads to extreme water runoff, which jeopardizes water balance and elevates the risk of flooding.

For instance, there has been an increase in the number of major floods that have occurred in Saudi Arabia, since 2009, the most recent of which occurred in Jeddah in November 2017. According to the International Disaster Database the flash flood in Jeddah in 2009 caused more than 100 fatalities and an economic loss estimated to be in excess of 900 million U.S. dollars (USD).

These unstable rainfall patterns also increases the frequency and intensity of drought. For example, the drought in Syria during 2007–2010 was the most severe in 1,100 years and caused considerable economic losses and the displacement of more than one million people.

Taken together, increasing temperatures, sporadic rainfall patterns, and flood events are expected to affect the availability of freshwater in the Middle Eastern region.

Based on the recommendation of a recent meeting of the United Nations and the League of Arab States and their specialized agencies convened at the League of Arab States Secretariat,

a Working Group on Water has now been established within the framework of the Regional Coordination Mechanism in the Arab Region.

The aim of the Working Group is to “foster cooperation and coordination of programs, plans, and activities affecting water resources management and the delivery of water-related services in the Arab States.”

20/12/2017 online at:

https://www.natureasia.com/en/nmiddleeast/article/10.1038/nmiddleeast.2017.172