



ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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When it comes to Kurdistan's water, problems flow but not solutions

At a spot where the Zei Bchuk River flows out of Dukan Lake young boys dive into the cool waters to escape the summer heat, a few men are washing a car right on the edge, pumps draw water into houses on the bank, and bottles and plastic bags drift with the current.

This scene at Zei Bchuk, or Little Zab, exemplifies the strain placed on the Kurdistan Region's water resources.

The Kurdistan Region is blessed with ample water, but the resource is misused and wasted, according to experts who say it boils down to two issues: lack of management and lack of education.

The primary sources of water in the Kurdistan Region are five main rivers that provide 75 percent of water for household and commercial use, drinking, and agriculture. The Sirwan and Zei Bchuk flow into the Region from Iran. Zei Gawre, or Greater Zab, and the Khabur flow from Turkey. The Awa Spi is located entirely in Kurdistan. In the northwestern areas they also draw water from the Tigris.

The Region also has groundwater that quenches the remaining 25 percent of the need. But the government wants to preserve this source as much as possible.

“It is not that we don't have water, the problem is in our management,” said Dr. Mohamed Amin Barzinji, dean of the Natural Resources Engineering and Management department at the University of Kurdistan-Hawler (UKH).

Akram Ahmed, head of the Kurdistan Regional Government's (KRG) Directorate for Dams and Reservoirs agrees. “That's absolutely right. Absolutely right,” he said. “Integrated water resource management is strongly required for our Region.”

The failure is evident in an ongoing water shortage. Iran recently cut off the flow of Zei Bchuk, leaving residents of Qaladze high and dry. The KRG has no contingency plan to provide water to Qaladze even though construction on Iran's dam was ongoing for years.

Qaladze is not suitable for digging wells to draw groundwater; they rely on the river for 100 percent of their water. So the long term plan is to construct dams, said Akram Ahmed.

That will take years and half a billion dollars.

What to do in the short term and in the emergency? The answers were a series of shrugs.

Masood Karrash, who runs Erbil's water department under the Ministry of Municipalities and Tourism, threw his hands into the air wondering why the government had not braced itself for the eventuality of Iran cutting the river's flow.

Dams take years to build. Iranian authorities spent millions of dollars and relocated people in their construction project. It was a “clear message” that they would one day cut the water, he said.

Karrash recently met with Qaladze officials who showed him photographs of what was happening, which was disheartening, especially knowing that thousands of people were dependent on the water.

The Minister of Agriculture and Water Resources, Abdulsatar Majid, said the government has two solutions to the problem: diplomatic talks and building their own dams to store water.

“We expect Iran to help, not harm us, using water as a weapon against the Kurdistan Region and its people,” Majid said.

The Kurdistan government thinks it has a bargaining chip in its talks with Iran.

“Iran has many interests in the Region – political interests, security interests, economic interests. If they are ready to sacrifice these interests by blocking water, let them do it,” said Majid.

What is needed, said Ahmed, is to create a balance between water supply and use.

For him, “water management means distributing water through the canals to the agriculture in order to reduce the amount of loss, and to send the proper water to the inhabitants, to protect water from pollution, to start at the same time to have water treatment plants.”

Before the 2003 US invasion of Iraq the Kurdistan Region had no money for large-budget projects.

After the fall of Saddam Hussein, the Region saw exponential growth and rapid expansion of cities which led to investment in water infrastructure based on 3.1 percent population growth, Karrash explained. And for a few years, his office, responsible for distribution of water, did not receive any complaints from residents.

The government also negotiated several dam projects with private companies, reaching “final” stages, Ahmed said.

Then came the financial crisis of 2014 caused by a complete budget freeze from Baghdad and a sharp decline in oil prices.

The Region was also flooded by 1.8 million refugees and Iraqis displaced by war. This 40 percent increase in population, Karrash explained, disrupted all their plans. Now people with complaints about lack of water are regular visitors to his office.

Majid’s ministry has not received funds since 2013 which means their dam and irrigation projects are all on hold.

Barzinji at UKH suggests that oil revenues should be spent on water, which is life.

“Why not use the oil to support the other domains?” he asked, arguing that water and agriculture are more important. “We can live without oil and cars, but we cannot live without bread and water.”

The agriculture minister agreed that water shortage and food security are linked.

“I believe these two issues, water and bread, are very significant in which the government should have plans, allocate appropriate budget and make good decisions in this regard,” he said.

Ahmed believes that politicians should leave water management to technocrats and experts who warn that without a firm plan further development and climate change could only make the situation worse.

26/07/2017 online at: <http://www.rudaw.net/english/kurdistan/250720175>

Israeli-Palestinian water pact raises hopes, suspicions

The Palestinian Authority (PA) and Israel have reached a tentative water-sharing deal with the help of the United States. Though officials expect a final agreement within weeks, some Palestinians worry the pact will give Israel more leverage over them and say they are already entitled to the water.

US Middle East envoy Jason Greenblatt recently brokered the deal under which the PA will be able to buy 32 million cubic meters (26,000 acre feet) of water yearly from Israel's desalination stations in the Mediterranean Sea. The West Bank will receive 22 million cubic meters for 3.3 shekels (\$0.92) per cubic meter, and the Gaza Strip will receive 10 million cubic meters for 3.2 shekels per cubic meter.

The PA and Israel launched talks about the agreement in August 2015, but the latest deal was only reached after the two parties overcame price hurdles, Palestinian Water Authority President Mazen Ghoneim said during a press conference July 18 in Ramallah, which Al-Monitor attended.

The deal is expected to help alleviate the current water crisis in the Palestinian territories, but it will not solve the problem, Ghoneim said. “The crisis will not be over unless Israel's occupation ends and we get our water rights in the three underground basins that Israel controls,” he added. Water is one of the issues included in the 1993 Oslo Accord, which said Israel must recognize the water rights of Palestinians.

The final agreement on water between Israel and the PA is expected to reinforce US efforts to resume peace talks between Israelis and Palestinians. But Ghoneim denied any link. “The water that will be given to us as part of the deal is our right because we are on the coast of the Dead Sea. This has nothing to do with negotiations on a final [settlement] with Israel,” he said.

Greenblatt has said US President Donald Trump has "made clear that working toward a lasting peace agreement between Israel and the Palestinians is a top priority for him."

Although the final water agreement has not been signed yet, Ghoneim said Israel started pumping 6,000 cubic meters of water daily to the Halhul reservoir in the southern West Bank through Israel's water carrier on July 18. The reservoir's capacity is 25,000 cubic meters.

Ghoneim noted, "To implement the agreement that is to be signed, Israel must set up the Palestinian infrastructure for the project to establish new water transfer pipelines and reception centers for water from Israel and centers to distribute water to provinces. This would cost around \$80 million, which the donor countries would grant."

It will not take long for Gaza to reap the fruits of the project. Ghoneim said, "The Palestinian Water Authority teams have started working in Gaza to receive the allocated water quantities, as 5 million cubic meters of desalinated water must reach the Gaza Strip by the end of 2017, and the rest will be delivered later."

The water deal is the latest step in economic cooperation between Israel and the PA under US sponsorship. Israeli Minister of Energy Yuval Steinitz and Yoav Mordechai — coordinator for government activities in the territories — joined Palestinian Prime Minister Rami Hamdallah at the July 10 opening of a power station in Jenin in the northern West Bank. Through this station, the Palestinian Energy Authority will buy electricity from Israel and distribute it as part of the PA's efforts to build and develop a Palestinian power market.

In addition, the newly negotiated agreement is tied to the 124-mile Two Seas Canal project to transfer water from the Red Sea to the Dead Sea, which is drying up, losing about 4 feet of its depth per year. Jordan, the PA and Israel signed a memorandum of understanding in 2013 for the project. In February 2015, Jordan and Israel agreed to install a water desalination plant on the Red Sea.

"The Two Seas Canal is a regional cooperation project that Washington, Japan and European countries are supporting and sponsoring. We will make sure it includes binding clauses for Israel," Ghoneim noted.

Greenblatt said at a July 13 press conference in Jerusalem — during which he announced the water-sharing deal — that the new pact is a pivotal step for the Two Seas Canal project.

Nasser Abdul Karim, an economics professor at Birzeit University, contends that Israel wants joint economic projects because they embody Israeli Prime Minister Benjamin Netanyahu's vision and economic peace program. Netanyahu believes that peace is achieved through the economic sector rather than through ending the conflict. He seeks to barter economic arrangements for political concessions.

"Israel does not seek material profit from its economic relations. It rather seeks to preserve its security and political superiority [over the PA]. Israel is ready to establish economic ties with the PA and alleviate economic restrictions as long as the [economic cooperation] does not undermine Israel's envisioned solution and does not allow the PA to have economic control and sovereignty," Karim told Al-Monitor.

“The projects that were recently declared, such as the power-transfer station or the water deal, entrench the Palestinian territories’ economic subordination to Israel and do not reflect any sort of Palestinian sovereignty,” he added.

Strengthening joint economic ties between Israel and the PA seems surreal to some. These relations are fragile and might fall at any moment into a political deadlock, making it impossible to achieve the two-state solution and ensuring the absence of Palestinian sovereignty in these projects, which Israel controls. Many Palestinians are wondering: Who can guarantee these projects would endure if a Palestinian uprising were to break out, as happened in 2000?

25/07/2017 online at: <http://www.al-monitor.com/pulse/originals/2017/07/israel-palestine-economic-peace-water-agreement.html>

The “Apolitical” Approach to Palestine’s Water Crisis

Overview

Earlier this month, Israel and the Palestinian Authority (PA) announced a new deal in which Israel will sell the Palestinians 33 million cubic meters of desalinated Red Sea water per year, with 10 million cubic meters transferred to the Gaza Strip and the rest to the West Bank.

The deal masks the fact that Palestine is undergoing a man-made, rather than natural, water crisis. Government officials, the international community, donor agencies, and even academic literature portray Palestine’s lack of water resources as a foregone conclusion – a result of the region’s climatic conditions. What these narratives fail to address is that Palestine’s water scarcity is a social and political construct that obscures how Israel entrenches its hegemony over water resources, resulting in severe water inequality for Palestinians.

For decades, Israel has proposed technological solutions to address this scarcity, such as desalination plants and wastewater treatment and reuse. International donors have played a major role in reinforcing Israel’s approach. These solutions are tied to the belief that science, technology, and infrastructure will ensure that water is no longer a source of contention, conflict, and even war. But these technologically driven solutions disregard the social, political, and cultural elements of water.

This is not to say that technological advances in water are not essential for the development of societies. Indeed, the harnessing of additional water sources is needed to accommodate increasing populations, particularly in the face of the effects of climate change. But in the case of Israel and Palestine such technologies have embedded political motivations and uses. Indeed, we must ask: How does Israel benefit from these technological advancements while maintaining its coercive control over the water of the West Bank, not to mention its responsibility for the water crisis in the Gaza Strip? Can Palestinians rely on the potential of technology to increase their water availability under the context of occupation?

This policy brief examines how, in fact, Israel’s technological innovations operate in a context of systematic theft of water resources, which weakens Palestinian efforts to attain water rights

and the equitable allocation of water sources. It focuses particularly on international donors' role in shoring up this situation, and offers recommendations on what Palestinians can do to challenge the status quo and obtain the water rights to which they are entitled.

The Establishment of Israel's Water Hegemony

When Israel occupied the West Bank, Gaza Strip, and Golan Heights in 1967, all the headwaters of the Jordan River, in addition to West Bank groundwater, came under its control. ¹ In 1982, the Israeli military transferred its control of the West Bank's water resources to Mekorot, Israel's water company founded in 1937.

The 1993 Oslo Accords established a Joint Water Committee (JWC) through which Israelis and Palestinians coordinate management of water resources in the West Bank. Yet the Accords allow Israel to control Palestinian water infrastructure development by sanctioning and freezing Palestinian water projects while also intimidating Palestinians so as to legitimize water projects in settlements, which are illegal under international law.

Israel is currently using 85% of the shared water resources of the West Bank, leaving Palestinians high and dry. Not only does Israel exert hegemony over access to West Bank resources, the Palestinian Water Authority is completely dependent on Israel as the main supplier of water, purchasing its stock from Israel since the Oslo Accords. And contrary to Israeli claims, the Palestinians are not receiving gratis water additional to that which was allocated by Oslo, leaving the PA with no choice but to buy more water from Mekorot to meet the increasing demand of its population. ²

Moreover, Israel has since the 1990s made huge investments in desalination and wastewater treatment, enabling it to become a water exporter to its water-scarce neighbors. Mekorot manages 100 mega-projects throughout Israel, including 40 desalination facilities that provide 60 million cubic meters of water per year. In addition, Israel's wastewater reclamation and treatment facilities allow it to reuse 60% of its treated wastewater for agricultural purposes. Israel outsources this technical expertise to the developing world, and its collaborations with water companies and governments of Argentina, Cyprus, Uganda, Azerbaijan, and Portugal generate billions of dollars.

With its drive for technical solutions that ignore the politics of its appropriation of Palestinian water, Israel's agreements with the PA have addressed water as a practical issue. The established transfers, quotas, and swaps fail to adhere to the principles of international water law, which call for equitable water allocations and the acknowledgment of Palestinian water rights. After a six-year freeze in the JWC's work, cooperation resumed in January 2017. The freeze was due to a conditional arrangement in which Israeli settlement projects had to be approved for Palestinian projects to be considered. According to Jan Selby, between 1998 and 2010, Palestinians gave approval to more than 100 Israeli projects in the West Bank, but 97 donor-funded projects are still awaiting Israeli approval. The resumption of meetings and cooperation is far from benign. While the new arrangement will allow Palestinians to carry out the laying of pipes and networks without JWC approval, it does the same for Israel, meaning that Israel can develop its networks for settlements without joint approval from the

JWC. Moreover, as Selby notes, “Though Palestinians will now have autonomy to lay pipelines, what they won’t have is any additional water to go in them – except with Israeli consent.”

How Donor Funding Shores Up Israel’s Status Quo

The international donor community, in its eagerness to establish evidence of the usefulness of its million-dollar investments, exacerbates this system of water inequality between Israel and Palestine. Though donors’ approach has been to increase water availability and protect the health of people and the environment, under occupation this is achieved through acquiescence to the status quo. Aid is not supposed to be a long-term intervention, but rather should provide support to local actors and communities so they can develop sustainable resource reclamation and ownership. Considering the decades-long interventions and millions of dollars channeled to the Occupied Palestinian Territory (OPT) in the water sector, the failure of donor communities to enhance the living conditions of Palestinians demonstrates how aid has harmed the recognition of Palestinian rights.

Since the 1990s, international donor agencies have increased investment in the Palestinian water sector by constructing small- and large-scale wastewater treatment plants, water networks, sewage lines, and even a desalination plant in Gaza. Most of these projects are conducted under the terms of the Oslo Accords, which dictate that the Joint Water Committee plans the projects before any money is given to the PA. As such, the development of the water sector outside the narrow scope of Oslo is restricted. 3

International investments have generally focused on the construction of wastewater treatment plants in the West Bank, with increasing donor interest in the development of six major plants in Nablus West, Jenin, Jericho, Al-Bireh, Ramallah, and Tulkarm. Yet a significant number of these projects do not come to fruition. The Salfit wastewater treatment plant, for example, secured funding in the 1990s but has never been operational. The JWC has taken the project through a labyrinth of bureaucracy, from changing its approved location to making its operation conditional on linking it to the Ariel settlement, one of the largest settlement blocs in the West Bank that channels its untreated wastewater into Palestinian villages nearby.

The official framing of these projects obfuscates underlying political issues. In 2015, for instance, the European Union and the Palestinian Water Authority (PWA) signed an agreement to construct a \$20.5 million wastewater treatment plant in Tubas Governorate in the northeastern West Bank. The Head of the PWA, Mazin Ghunaim, said:

Untreated wastewater remains a major challenge in Palestine and has serious implications on health, environment, and agriculture. This project will significantly reduce health risks for the population of North Tubas Governorate and the contamination of the environment. It will also allow the re-use of treated wastewater in agriculture hence conserving the limited groundwater resources in Palestine. (emphasis added)

Such convictions of the need for wastewater infrastructure to replace a “limited” resource is echoed by many PA officials, donor agencies, and civil society organizations.

While wastewater treatment is necessary, its framing as an additional water source for agriculture strengthens the notion of finding alternative means of achieving water rights in Palestine. In other words, the focus on the potential of wastewater rather than Palestinians' lack of water rights couches water as a natural crisis that needs a technological solution – rather than a man-made problem that deliberately deprives Palestinians of a vital resource.

As for the Gaza Strip, over the last decade news articles, reports, and international campaigns have described its water scarcity as “catastrophic,” “alarming,” and constituting a “humanitarian crisis.” Indeed, the population is forced to make do with a main water source – a coastal aquifer – that is 96% unfit for human consumption. This is due to decades of over-extraction, sewage contamination, and seawater intrusion. Israel's blockade and offensives have exponentially exacerbated this problem and solidified water de-development, in large part due to the destruction of vital wastewater treatment plants, reservoirs, and power stations.

The international community as well as the PA have since the 1990s framed Gaza's water crisis as solvable via a desalination plant. The Secretariat of the Union for the Mediterranean, a body bringing together 28 EU countries and 15 nations from the southern and eastern shores of the Mediterranean, has particularly pushed for the project. The union argues:

With no alternative existing source of fresh water, a large-scale desalination plant is an absolute requirement to address the water deficit in Gaza. The urgency for the Desalination Facility for Gaza has increased with the rising level of humanitarian crisis in Gaza related to inadequate water resources with related impacts on human health.

Such an approach strengthens the narrative of the geographical and political separation of the Gaza Strip from the West Bank, treating Gaza as a standalone entity requiring its own energy-intensive facility for water. These claims ignore the fact that the water of the West Bank – almost entirely controlled by Israel – can provide relief to Gaza. As Clemens Messerschmid, a German hydrologist working in the Palestinian water sector, contends:

Under international water law, Gaza has a right to a fair share of the Coastal Aquifer Basin. Gaza cannot be separated from the rest of Palestine. Gaza must be supplied from outside, just like New York, London, Paris, or Munich. The water-rich West Bank purchases ever-increasing amounts of water from Mekorot Company (Israel), while Gaza should look after itself? This is pure and 100-percent Israeli long-standing logic and hydro-political rationale. The historical Palestinian struggle for water rights, for an “equitable and reasonable share of trans-boundary water resources,” which is enshrined in international water law, is abandoned under this new paradigm. The Israeli Negev has a surplus of water because the entire upper Jordan River is transferred at Lake Tiberias into the National Water Carrier, which passes Gaza at its doorstep. Huge amounts of surplus water are literally flowing past Gaza, while the Strip keeps drying up.

Similar to the wastewater treatment plants in the West Bank, Gaza's desalination plant, though constructed, is not fully operational. UNICEF, after decades of raising funds from the EU and others, inaugurated the plant in January 2017. However, by the end of February the plant was only running on a partial basis, powered by emergency fuel. Desalination plants

also require continuous maintenance and spare parts and materials, which is now facilitated under the Gaza Reconstruction Mechanism. Designed to “facilitate urgently needed reconstruction,” the Mechanism made the blockade its starting point, a move that Oxfam criticized as normalizing the siege and “giving the appearance of legitimizing an extensive control regime.” Moreover, Oxfam reiterated the danger of separating economic and technological solutions from political conditions.

When Palestinian and international policymakers flag desalination as the only solution to Gaza’s water situation, this shores up the narrative that technological advancement saves the day, without addressing the underlying political realities and restrictions on the ground.

It also exemplifies donors’ naïve approach to water in Gaza and the West Bank. Essentially, these projects fail to challenge – and thus, even unwittingly, underwrite – Israel’s international law violations, namely its continued occupation and expropriation of Palestinian land and natural resources.

Moreover, the main donors, namely the EU, the UK, and the US, not only fund problematic projects, but actively promote Israeli technology and scientific advancement while ignoring the potential for Palestinian water research.

The Elision of Palestinians from Infrastructure, Technology, and Scientific Collaboration

With the Israeli occupation imposing military laws on the access and control of essential resources such as water, as well as tightening imports of basic fuel and energy sources, the Palestinian Authority has not developed substantial infrastructural development in the water sector for decades, especially in Area C, which constitutes 60% of the West Bank. The occupation’s “civil administration” has the power to veto all infrastructure projects in Area C, with an acceptance rate of only 1.5% between 2010 and 2014. Most large water projects have been frozen due to Israel’s condition of connecting settlements to such projects, whose funds come from donor agencies to the Palestinian people. Area C therefore remains a site of de-development and is framed by the international community as a space of humanitarian intervention only.

Moreover, the international community’s close collaboration with and admiration of Israel’s water technology remains unconstrained and blind to the de-development and sanctioning of the Palestinian water sector. Recently, the EU rated Jerusalem – occupied by Israel in violation of international law – as one of the top five cities in the world for water efficiency, management, and innovation. This congratulates an occupation regime for its work in a city where 36% of its Palestinian residents are not even connected to the Israeli water infrastructure and where discriminatory policies are implemented in order to empty the metropolis of Palestinian inhabitants.

In 2012, the European Commission and the Israeli Ministry of Energy and Water Resources signed a five-year memorandum of understanding to strengthen scientific cooperation, especially in the field of water desalination and energy. The British government is also pursuing such collaboration with Israel. It recently launched two platforms that entail such

initiatives as placing Palestinian graduate students in Israeli laboratories to build partnerships and “solve serious water shortage and quality issues.” Apart from the business-as-usual stance toward an occupying force, the approach is problematic in that it seeks to normalize the occupation given that investment in scientific excellence is not considered for Palestinian universities and research institutions. Rather, all work benefits the institutions of the occupier.

One seeming exception to this trend is through the UK’s Department for International Development, which supplied \$1.6 million to help vulnerable rural farmers in Area C of the West Bank, mainly Bedouin herders, support their families due to the increased cost of agricultural production. The program has allowed the farmers to rehabilitate water cisterns, and has provided approximately 20 miles of water conveyance systems; these developments have improved irrigation efficiency. Cisterns, however, have limited storage capacity (70 cubic meters/year) and rely on harvesting rainwater. As such, their rehabilitation only alleviates, rather than helps to solve, the occupation’s imposed water shortage, and in a broader sense weakens Palestinian efforts to achieve an equitable share of resources by limiting more empowering water development to small-scale solutions.

In sum, donors have continued a business-as-usual approach that normalizes the occupation, engaging with and funding research and scientific collaboration with Israel and investing millions of dollars in water infrastructure development commandeered by Israel. Donors are even rehabilitating or rebuilding infrastructure that Israeli forces destroy. Donors’ complicity in these destructive mechanisms contributes to Palestinian complacency and dependency, as well as an overall de-development of the Palestinian water sector. An overwhelming apoliticization of water issues impedes the Palestinian quest for the right to self-determination.

The Struggle for Palestinian Control over Water: Ways Forward

While the water situation may look bleak for Palestinians in the West Bank and Gaza Strip, there are a number of strategies that Palestinians and their allies are undertaking – and can develop further – to reveal the political, man-made nature of water inequality in the OPT and push for just solutions to the crisis.

Highlight how the donor-led water sector development approach is distracting at best, and harmful to Palestinian dignity, independence, and overall success in reclaiming water rights at worst. This will require campaigns and programs that enhance awareness of the politics of water and demand donor accountability to ensure Palestinian water rights are met within the Palestinian agenda, namely through addressing Israel’s rights violations and occupation.

Demand that donor-funded water sector development projects follow a comprehensive and territorial contingency plan throughout the OPT. Such projects should ensure that development – not humanitarian aid – programs are implemented in a participatory and transparent manner so that water rights are made a top priority.

Strengthen Palestinian research institutions and universities as hubs of knowledge on natural resource politics and management, where appropriate technologies and applied research are

produced to reflect the political, social, economic, and cultural facets of natural resource management under occupation, and develop a robust technical niche of Palestinian water experts and engineers to support local, community-led mobilization.

Demand greater transparency of PA authorities to ensure they protect the Palestinian right to natural resources by strengthening and actively joining both local and international water rights campaigns and providing a strong platform for civil society organizations to represent Palestinian water injustice nationally and internationally.

Build alliances with international and transnational movements to further expose Israeli water rights violations and develop a global action campaign with indigenous communities that actively oppose large-scale extractive industries and states.

Finally, underpinning all the above, it is vital to reintroduce and reframe the struggle over access to and control of natural resources as part of the Palestinian struggle for self-determination and freedom.

31/07/2017 online at: <http://imemc.org/article/the-apolitical-approach-to-palestines-water-crisis/>

Kuwait signs two water project deals for Yemen

Kuwait signed a funding deal for two water projects at a hospital and a camp for the internally displaced with Yemeni local authorities in Al-Jawf province on Thursday.

The project, dubbed 'Kuwait is by your side', is part of a philanthropic relief campaign in the province, located to the northeast of Sana'a, its coordinator Saleh Baqalaqa said.

For his part, Yemeni Chairman of the Relief Committee in the province and Director of the governor's office in Al-Jawf Abdullah Al-Hashidi thanked Kuwait, led by His Highness the Amir Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah, for financing relief projects in the province.

The Kuwaiti campaign is dispersing emergency relief in Yemen through five sectors, including food, water, education, shelter and healthcare.

The Kuwaiti-Yemeni relief organization includes a number of Yemeni and Kuwaiti associations aiming to deliver the assistance to Yemen.

27/07/2017 online at: <http://www.kuna.net.kw/ArticleDetails.aspx?id=2626372&language=en>

Oman announces plans for dam at Wadi Adai

Oman has announced plans to construct a new dam at Wadi Adai to the east of the centre of Muscat to conserve water and prevent flooding.

Times of Oman reports that authorities have been given permission to expropriate real estate and land for the G2 Dam project under a royal decree issued by the country's ruler Sultan Qaboos bin Said.

Landowners will be compensated under the country's expropriation law.

The project is designed to provide flood risk protection to property along the wadi and feed underground aquifers to preserve fresh water.

Parts of Oman have experienced flash floods, hailstorms and heavy rainfall in recent weeks with the town of Al Awabi southeast of Rustaq particularly affected.

The Ministry of Regional Municipalities and Water Resources said in a recent report that had water overflowed in more than 20 wadis and dams with rainfall in part blamed on cloud buildup over the Al Hajar Mountains.

Ministry water resources expert Ahmed Al Barwani told Times of Oman that Wadi Adai was one of the most flood prone areas in Muscat.

The Wadi Adai dam will stretch 6.2 million cubic meters with the dam structure itself taking up around 34,915 cubic meters.

31/07/2017 online at: <http://gulfbusiness.com/oman-announces-plans-for-dam-wadi-adai/>

Experts Urge Proper Management Of Afghanistan's Water Resources

In response to these calls, the Ministry of Energy and Water says construction of dams requires a huge amount of money.

Critics have called on government to create proper mechanisms to harness and use Afghanistan's water resources and prevent it from going to waste.

Currently most of the country's water flows into neighboring countries. Critics say government's "inability" to take advantage of the country's water resources could pose a major financial threat to the national economy.

"The government, besides working on service and other important projects, must take steps to manage water in Afghanistan so that the problems related to this sector are removed," economic affairs analyst Azrakhsh Hafizi said.

Statistics from the Ministry of Energy and Water show that the level of water in the Amur River basin is estimated at more than 20 billion cubic meters per annum.

However, until now, Afghanistan has not managed to build a single dam on the river.

According to the Ministry of Water and Energy (MoWE), the ministry would need an extensive budget to build dams.

"We have our own plans which will help us to take sufficient advantage of our water resources in the north, but you know that we need huge amounts of money to build dams," said Basir Azimi, deputy minister of water and energy.

The MoWE was planning to build several water canals from the Amu River to five provinces including Badakhshan, Takhar, Kunduz, Baghlan and Bamiyan provinces - in the country's north and northeastern – within the next five years, he said.

Nearly half of Afghanistan's rivers flow into the Amu River. But most of the water flows on to other Central Asian countries.

This comes after Iranian President Hassan Rouhani criticized Afghanistan for its plans to build dams.

The remarks were met by harsh criticism by members of the public.

26/07/2017 online at: <http://www.tolonews.com/index.php/node/55306>

Taliban blow up a water dam with explosives in Kandahar

The Taliban insurgents have blown up a water dam in southern Kandahar province of Afghanistan as the group has unleashed an unprecedented violence in key southern provinces during the recent days.

According to the local security officials, the incident took place earlier today in the remote part of Shorabak district.

Provincial police spokesman Zia Durani confirmed that a water dam was detonated by the Taliban insurgents using explosives materials.

Durani further added that the dam was constructed in a remote part of Shorabak district which was playing a key role in irrigating the agricultural lands.

He said thousands of acres of land and gardens were irrigated by the dam and its destruction has sparked panic among the residents who are saying that their land will be harmed if it is not reconstructed immediately.

The Taliban insurgents group has not commented regarding the report so far.

Kandahar has been among the relatively calm provinces in southern Afghanistan during the recent years but the security situation of the province, particularly, the remote districts have started to deteriorate during the recent months and after the Taliban militants increased their focus on key southern provinces after they launched their spring offensive in April this year.

29/07/2017 online at: <http://www.khaama.com/taliban-blow-up-a-water-dam-with-explosives-in-kandahar-03239>

Pakistan's National Water Policy

Over the years, multiple democratic and military governments of Pakistan have been unsuccessful in providing their country with a formal water policy. This comes as a major setback since Pakistan is primarily a 'water economy' and faces exponentially growing

problems of water scarcity, climate change, increased population demand for water and mismanagement of water for industrial and agricultural consumption.

There have been many drafts that came into existence at the national and provincial levels. However, none have been approved as a policy. The National Water Policy (NWP) draft was initially prepared in 2005 after a World Bank comprehensive policy study, however, once at the federal cabinet this draft could not see the light of day. In 2010, the decision to revise the NWP was taken to incorporate the recent developments in the water sector and the growing impact of climate change on water resources. A joint committee was formed to finalize the water policy. In 2012, the committee presented its final version to the ministry of law and justice who were of the view that the constitution does not provide any provision for the NWP as this was a provincial matter. In 2015, upon the prime minister's instructions, the updated NWP was made available to all stakeholders for review and updated accordingly. After much debate and consensus building among the federal and provincial governments, the NWP was sent to the Council of Common Interests in 2017 where despite being on the meeting agenda, it was largely ignored.

Given that water is a highly politicized issue, the need of the hour is consensus building and taking forth difficult decisions which are beneficial for all. Water is everyone's business, therefore, for an effective water policy we need representation from all sectors of the economy and an understanding of the fundamental changes that have to be undertaken to safeguard our finite water resources. These policies should reflect a concise structure with well-defined objectives, action items, implementation methodologies and a time frame to achieve all its set aims and goals.

Land, water and geography are the major natural resources of Pakistan to build and sustain its future development. Our water policy should be focused on capitalizing on these three for expanding the water supply. Pakistan is an agro-based economy where agriculture accounts for up to 20% of GDP. Pakistan recently achieved the highest growth rate of 5.28% in the last decade largely due to the agriculture sector recovering from 0.27% to 3.46% growth. Agriculture is also the largest consumer of water. It is estimated that up to 95% of all surface water and groundwater is utilized in irrigation. Therefore, water is the essential factor driving our economy via water embedded in the production of various agricultural outputs and further commodities. According to recommendations for Pakistan water policy framework by Hisaar Foundation, the water economy has the potential to achieve a billion dollar output for each million acre-feet of water utilized for agriculture.

There are an additional 22 million acres of land that can be irrigated by extending the Indus basin irrigation networks to arid areas of southern Punjab, eastern Sindh, southern K-P and eastern Balochistan. The policy should bring forward future exploration and development of new water infrastructure as well as management and repair and replacement of the existing systems. The water policy should target promoting sustainable use of our available water resources by increasing the current water efficiency. There is a huge potential for increased water supply by increasing our canal irrigation water efficiency which currently stands at 33% in comparison to 90% in the developed countries. Repairing the downstream leakages, smart

metering and creating effective solutions for reducing the demand for water form the core of increasing water efficiency. Pakistan can store only 10% of its annual rivers flow as compared to the world average of 40%. The absence of these translates into massive economic losses. For instance, three years of repeated floods in 2010, 2011 and 2012 inflicted severe damage on the national economy, reducing its potential economic growth by half. The economy grew on average at a rate of 2.9% per year instead of its potential growth rate of 6.5%.

Another key feature the water policy should address is the rights and entitlements of all users of water. Water rights in the Indus basin are linked to land ownership where preferential land allotments along the canal system ensures that only the rich and influential few control the access to water. Allocating water for rural water-deprived areas should be a priority as the social and economic development in these areas cannot be achieved without access to water. The water policy should call for an equitable distribution of water. Water sharing among districts should be distributed according to the share of ground water, surface water and precipitation combined. Per capita water entitlements should be established to determine the water supply for domestic use and beyond the set entitlement. The users should pay the economic value of water.

At the international level, the Indus Water Treaty governs Pakistan's rights to water from the Indus basin shared with India. The treaty has stood the test of time even though the growing environmental and economic pressures on either side of the border give way to water resource conflict with national security implications. The water policy must address the need to go beyond the treaty as it does not cover groundwater usage and the impact of climate change on water availability. For transboundary water management, a regional perspective must be adopted besides India; both Afghanistan and China must be included as our river systems originate there and we currently have no treaties with either.

The water policy should strive to achieve improved water quality for all purposes. In Pakistan, the percentage of wastewater released without any form of treatment has been estimated at 82%. Establishment of water treatment facilities and developing and adopting cost-effective technologies for filtration and disinfection of water utility should be a priority of the water policy to provide people with safe water consumption. An estimate reveals that drinking contaminated water causes up to 40% of the diseases in Pakistan which result in income losses of Rs25–58 billion annually, accounting for approximately 0.6–1.44% of our GDP.

In order to achieve the targets of the water policy, large investments in the water sector are required. The policy should feature a plan for attracting local investors such as local banks and financial institutions, public-private partnerships to raise the funds for water infrastructure and development projects, and subsequently not depend on foreign aid. The opportunity for gains from this emerging market of water scarcity and investments in the entire value chain of water need to be capitalized upon. Besides these investments in human capital are also required to bring forth a generation of water professionals to meet the challenges of this sector with scientific knowledge and research.

As Pakistan enters its 71st year, the government needs to move beyond highlighting water issues as a part of the National Climate Change Policy and the National Drinking Water

Policy towards a comprehensive NWP to address the challenges of the water crisis that we are facing.

29/07/2017 online at: <https://tribune.com.pk/story/1469030/pakistans-national-water-policy/>

83 per cent water in Pakistan's Sindh unfit to drink: Report

As much as 83 per cent of water in Pakistan's Sindh province is unfit to drink, with Karachi scoring the highest in terms of contaminated water supply, a report has said.

The report, submitted by a commission to the Supreme Court of Pakistan, said 83.5 per cent of water in 14 out of 29 districts of Sindh is unsafe for drinking, Dawn newspaper reported on Monday.

The commission was constituted last year when a number of Sindh residents filed petitions in the apex court against government offices which "are required to ensure provisions of potable water, sanitation and hygienic atmosphere, but they have individually and collectively failed to discharge such fiduciary, statutory and constitutional duty".

The water supplied to the residents has "insects crawling in it, despite sieving it through the thinnest of muslin", Mohammad Riaz, a chauffeur who lives in one of Karachi's squatter colonies, told Dawn.

"Often the water tasted salty, or was cloudy," added another resident who in January switched to bottled water.

Head of the commission Justice Muhammad Iqbal Kalhoro earlier in July "asked the head of the Karachi Water and Sanitation Board, responsible for 90 per cent of water supply in the metropolis, to show him one area which was supplied with clean water", said Ghulam Murtaza, amicus curiae for the commission.

The commission was tasked to collect water samples from 14 cities as villages were left out because the taskforce only looked into major urban centres where water was supplied by government agencies.

A research officer of the Pakistan Council of Research in Water Resources (PCRWR) said that out of 460 samples collected from across Sindh, 232 (50.4 per cent) were collected from surface water, 179 (39 per cent) from groundwater, 46 (10 per cent) from reverse osmosis filtration plants and three (0.6 per cent) from mixed sources.

Murtaza said the analysis suggested that Karachi had the highest water supply contamination score. At least 90.7 per cent samples collected from various places in Karachi were unsafe for drinking purposes.

"The presence of E. coli indicated the mixing of sewerage and drinking water supplies," said Murtaza.

Karachi gets its water from the Keenjhar lake -- sourced from the Indus -- nearly 122km from the city, through a canal system.

"The first drop of water that reaches Keenjhar lake from the Indus takes 17 days to travel to Karachi," said Khan, emphasising the value of the water.

Karachi Water and Sanitation Board has blamed the residents for the "contamination" as they "steal" water like electricity.

"When electricity is stolen, you can take action. When water is stolen from the mainlines which are underground and are punctured, you cannot," he said.

The board suggested that people played their civic part by keeping their underground water storages clean. "How often do we hear of residents of high rises, mosques and hospitals getting their tanks cleaned?"

Another water board official, requesting anonymity, said: "The board repairs leaks, and even replaces pipes every now and then, but while a complete rehabilitation of the entire distribution network is needed, it is a huge undertaking and may require two-to-three years."

Karachi has six water treatment plants (under the KWSB) that do not work optimally.

When Justice Kalhoro visited the treatment plants, the board admitted that "200 MGD is supplied unfiltered owing to a lack of capacity."

With unrestrained demand from Karachi's galloping population, the water board is expanding the supply system, while failing to rehabilitate the existing one. An official said "there is still a shortfall of 50 per cent".

31/07/2017 online at: <https://www.khaleejtimes.com/international/pakistan/83-per-cent-water-in-pakistans-sindh-unfit-to-drink-report>