



# ORSAM WATER BULLETIN

Weekly Bulletin by ORSAM Water Research Programme

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



## ORSAM WATER BULLETIN

30 December 2013 – 05 January 2014

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### ❖ **Massive aid effort accompanied 2013's Syria refugee exodus**

AMMAN, Jordan December 31 (UNHCR) - Over 2013 the number of registered Syrian refugees grew to more than 2.3 million people, fracturing families and necessitating a massive international relief effort particularly targeting some 1.2 million refugee children to ensure they do not become a lost generation.

At the start of 2013 the Middle East hosted some 500,000 registered Syrian refugees, but a year later, as Syria approaches the end of its third year of conflict, dozens of refugee settlements are now clearly visible even from outer space.

To keep pace with 2013's alarming exodus more than 196,000 tents and 809,000 plastic tarpaulins were distributed to refugees residing in camps and informal sites -- equivalent to more than 21 square kilometers of shelter material.

Schools, child-friendly spaces and psycho-social support facilities were established in camps to help meet the needs of the refugees who continue to pour out of Syria at a rate of 127,000 people a month. Aid agencies expanded support to communities that host 80 percent of the Syrian refugees and which place an enormous burden on local health facilities, schools, water and sanitation.

The size and scale of the Syria crisis over 2013 required the concerted engagement of 147 relief agencies, the main host countries of Lebanon, Jordan, Turkey, Iraq and Egypt and the generosity of scores of donors. However, the UN's 2013 refugee response plan was only 68 percent funded.

Across the region at present, some 400,000 refugees currently live in formal camps, but nearly 2 million reside outside formal settlements, testifying to the hospitality offered by host countries.

Families lacking financial resources often send their children to work to ensure survival. In both Jordan and Lebanon, UNHCR found children as young as seven years working long hours for little pay, sometimes in dangerous or exploitative conditions. In some settlements up to 43 percent of the refugee households are headed by women.

To ensure adequate protection and provide documentation, refugee registration efforts were expanded over 2013, reducing waiting times to only a matter of hours. Mobile registration teams were also established to better reach unregistered Syrian exiles.

An estimated 4.1 million Syrian refugees will need assistance by the end of 2014, including 2 million children. Agencies are calling for strong donor support ahead of the 15 January Kuwait II pledging conference for Syria; agencies are appealing for \$2.3 billion for activities within Syria and \$4.2 billion to address the needs of refugees.

As Syria's refugee exodus has grown, the number of formal camps across the region has doubled, from 19 camps a year ago to 37 at present. Turkey currently has 21 camps, Iraq has 12 camps and transit sites and Jordan currently has three camps with a fourth site ready to host up to 100,000 new arrivals.

Lebanon, with limited absorption capacity, hosts the largest number of Syrians in the region with over 850,000 refugees registered or awaiting registration who live in non-camp settings spread across 1,700 locations that host more than 120,000 exiles.

Over 2013 agencies distributed of more than 5.7 million blankets and quilts along with 4.9 million mattresses. To ensure the preparation of food and meet other basic needs, some 870,000 kitchen sets and a similar number of jerry cans were distributed. With tens of thousands of infants forced to flee with their families, nearly 5 million diapers were given out.

National and international NGO partners along with local charities provided further quantities of relief items and vital programming to assist and protect needy refugees. UNICEF distributed tens of thousands of winter outfits and footwear to refugees as well as providing schools, psycho-social support and vaccination, education, water and sanitation projects. The UN World Food Programme ensured food aid was available to needy refugees in the form of food vouchers, e-cards and direct distribution of food relief. Amongst the host of UN and other agencies working to address the displacement crisis, the International Organisation for Migration provided transport services for newly arrived refugees while the World Health Organisation led efforts to combat polio and other

diseases. The UN Relief and Works Agency for Palestine refugees worked to meet the needs of persons under its mandate caught up in the conflict.

For the winter cold season UNHCR earmarked \$138 million to provide additional weatherproofing, initiatives to insulate tents from the ground, winterization of water and sanitation facilities, drainage works, the distribution of additional thermal blankets, mattresses, stoves, clothing and fuel, heating education facilities and cash grant schemes. More than 78,000 families received stoves while tens of thousands of other families benefited from cash assistance to purchase heaters on the local market. Electrification efforts were extended in most camps and fuel was distributed.

Ahead of winter more than 17,000 caravans were delivered to Jordan's Za'atri camp, the vast majority contributed by Gulf State donors. All of Za'atri's 80,000 residents should be in hard shelter by early 2014. Cash assistance programmes targeting Jordan's urban refugees reached some 110,000 people using advance biometric technology. The government of Turkey similarly provided almost 12,000 caravans to refugees in its camps. Winter aid initiatives were likewise implemented in Turkey and Iraq, which respectively host 557,000 and 210,000 refugees, as well as in Egypt, where 131,000 Syrians are registered with UNHCR.

UNHCR works within Syria to aid internally displaced persons and over 2013 it reached more than 3.2 million people in all of Syria's 14 governorates, delivering more than 8 million various core relief items.

This winter the agency is implementing a \$79 million plan inside Syria to help 1.5 million internally displaced persons by providing relief items like thermal blankets, mattresses and tarpaulins, renovating 89 collective shelters and distributing cash assistance to thousands of vulnerable families.

“Massive aid effort accompanied 2013's Syria refugee exodus”, 31/01/2013, online at:  
<http://www.trust.org/item/20140101095342-ri5cr/?source=hppartner>

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### ❖ **Syria: Emergency supplies reach vulnerable children**

I took part in a UN convoy this week that delivered much-needed relief supplies to a hard-to-reach area of rural Idlib, in Syria's north-west.

An estimated 40,000 displaced people have taken shelter in Khan Shikhon town, swelling the regular population of around 80,000. They have come mainly to escape fighting their home areas in rural parts of Idlib and Hama.

For many of these vulnerable children and families, the humanitarian situation in Khan Shikhon is grim. Drinking water is in short supply, due to a lack of electricity to run the pumping station. A lack of fuel means that backup generators are also not available. As a result, people rely on private wells to get their water. The water quality cannot be guaranteed, however, contributing to a higher risk of waterborne diseases.

#### **No electricity**

There is currently no electricity, with local residents reporting that they have been without power from the grid for more than 18 months. A shortage of medical staff and certain medicines has left the two hospitals and a clinic only partially functional.

Food is available, but prices have risen dramatically, putting some ordinary items out of the reach of families already struggling to get by.

The community is effectively cut off, with the mobile network, landlines and internet barely working or not available at all. While some 27 schools remain open, they badly need school supplies including desks.

One of the few bright spots is that, despite the difficulties on the ground, children in the town have been receiving their polio vaccinations as part of a national campaign.

#### **UN inter-agency response**

Six UN agencies – UNICEF, WFP, UNHCR, IOM, OCHA, and UNDSS – contributed to the convoy which consisted of 10 trucks laden with supplies. Among these were two truck-loads of UNICEF supplies, including soap, washing powder, and family water kits. Each water kit provides for 10 families, including jerry cans and cups, along with aquatabs for water purification. The supplies are

sufficient for 3,000 families or around 15,000 people for a month. Other supplies in the convoy included food, blankets, mattresses, and plastic sheeting.

The convoy travelled for two days from Tartous before finally reaching a line of conflict. With the help of the Syrian Arab Red Crescent, negotiations with various parties including the Governor of Idleb and local community leaders had opened the door for the convoy to cross the conflict line and enter Khan Shikhon.

### **Local community members waved and smiled**

As we entered the town, people from the local community stood on the roadside waving and smiling. At the warehouse, where supplies were unloaded for distribution to the community by Sarc and the community themselves, community leaders thanked the mission team for their support. It was a great feeling to be able to bring humanitarian relief to some of the most vulnerable and hard-to-reach children and their families.

Although on-going fighting has hampered the delivery of humanitarian supplies, this convoy was a positive step forward. Not only did it result in essential supplies getting through, but it also provided an opportunity to meet with community leaders and get a better picture of the humanitarian situation and urgent needs, including the need for education support. UNICEF followed up and was able to deliver school materials for 4,000 children to the Khan Shikhon district: Specifically, school bags containing stationery and recreational kits. School supplies for an additional 4,000 children will be delivered once the security situation allows.

The Khan Shikhon mission is part of a larger effort to access hard-to-reach areas in this and other areas of Syria with on-going emergency help.

Every donation to our work for Syria's children will be matched pound for pound by the UK Government.

"Syria: Emergency supplies reach vulnerable children", 03/01/2013, online at:  
<http://blogs.unicef.org.uk/2014/01/03/syria-emergency-supplies-reach-vulnerable-children/>

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### ❖ **Climate refugees: The worst is to come**

Dozens of Lebanese seeking new opportunities in Australia lost their lives when a boat carrying them from an island in Indonesia capsized. While the Phoenicians were known to be adventuring traders and daring seafarers roaming throughout the world, their descendants are fleeing their sinking homeland in search for stability and better living conditions.

Prior to the Indonesia boat incident, thousands of immigrants from North Africa, including many Arabs, drowned on board of worn-out boats taking them to Lampedusa Island in southern Italy. They wanted to escape the conflicts and starvation plaguing their side of the Mediterranean. A few weeks later, ten thousand lives were lost in the Philippines as a result of floods and hurricanes. Experts see the frequency and severity of such weather events as a sign of the imminent negative impacts of climate change. They might be mere rehearsal of the actual act to come, which won't be theater but real calamities affecting real people.

We have repeatedly noticed such catastrophic scenes of people deprived of basic human rights, mostly as a result of futile conflicts that destroyed chances for decent life in their countries. Many of these countries had been, for centuries, governed by tyranny and corruption and plundered of their natural resources by bands of thieves, under the pretext of politics and trade.

Immigrants escaping wars and conflicts, whether to Australia via Indonesia, to Europe through Lampedusa, or through any other ocean, are but a tiny fraction of the mass exodus from the South to the North that will happen when the very likely impacts of climate change strike. All the world's border security fleets will not be able, then, to stop the starving millions looking for food and shelter from going anywhere, be it to Europe, Australia or America.

Can we imagine the fate of the inhabitants of the countries vulnerable to deteriorating droughts and water scarcity if their present fruitless internal disputes and armed conflicts persist? Their rulers and peoples seem not to be concerned about developing and implementing rational resource management systems or promoting regional cooperation to avoid the anticipated negative consequences. Instead, they are losing time in clashes based either on individual and tribal interests or on metaphysical beliefs. Therefore, their so-called "divine" wars on the heavens are washing away all hopes for decent life on earth.

We cannot, in any case, neglect the challenges of climate change. The latest report of the Intergovernmental Panel on Climate Change (IPCC) concluded that the climate is definitely changing rapidly due to human activities. The BBC had to go far to a remote Australian University to find one person with a scientific title who was ready to oppose the report findings. Just three years earlier, there was a campaign by many experts and professionals against the previous IPCC report. IPCC members were accused of manipulating figures and numbers. But things changed in three years. Some countries replaced their skeptic climate change negotiators in the recent Warsaw Summit, and adopted a new approach acknowledging facts and joining international endeavors to confront climate challenges.

The Arab region is among the most affected by climate change. It will witness increased droughts, less water and rising sea levels; and food security will be the first victim. But solutions are possible if Arab countries take immediate effective measures for managing resources, promoting sustainable development and adapting to a changing world. The Arab world is a region where the interconnection among issues of energy, food and water is so grave. This is why the latest report of the Arab Forum for Environment and Development (AFED) on the state of Arab environment discussed the issue of energy as a key component of an integrated sustainable energy system, which also includes water management. The report pointed out that most of the electricity generated in some Arab countries is used for desalination, whereas irrigation efficiency stands low, at an average of 40 percent. This translates into double waste of energy and water. Furthermore, the average efficiency of energy – generation, distribution and consumption is less than 50 percent. Such a situation is an indication of the absence of any proper planning to counter climate change challenges. The AFED report further urged policymakers to address climate change mitigation and adaptation in the energy sector through:

- Systematic assessment and monitoring of energy systems to ensure that they are robust enough to adapt to anticipated climate-related impacts,
- Implementation of energy efficiency and demand management as an adaptation measure, and
- Development of a new holistic approach to deal with the energy-water-climate nexus in the Arab region.

Some Arab countries act as if by defying nature they can solve resource challenges. They are desperately looking for any means to increase food production and power generation, rather than pursuing demand management and sustainable development plans. It should be noted that a 56

percent reduction in consumption can be achieved through the right investment in energy and water efficiency, while maintaining the present food productivity and industrial output levels. Any efficiency measures are definitely less costly than building new power generation and water desalination capacities. But current energy and water subsidy policies in most of the Arab countries, the benefits of which go mostly to the rich, neither promote efficiency nor provide fair competitive grounds for all forms of energy, including oil, gas, solar and wind.

Five years ago, the politburo of the Chinese Communist Party adopted a strategy of promoting solar photovoltaic panels for the generation of electricity. This made China today the world leading manufacturer of photovoltaic panels with their products dominating the markets of the world. Similarly, any change in the Arab countries requires a high-level political decision. Policies of governments should include clear signals that encourage the private sector to invest in energy efficiency, clean energy technologies and renewable.

“Climate refugees: The worst is to come”, AFED Forum, Najib Saab, December 2013, online at:  
<http://mideastenvironment.apps01.yorku.ca/2014/01/climate-refugees-the-worst-is-to-come-afed-forum/>

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### ❖ Desalination facilities to run at 70% capacity for 2014

After two sufficiently wet winters, Israel will be operating its desalination facilities at only 70 percent capacity during 2014, government officials recently decided.

Although the country's desalination facilities in 2014 will have a collective capacity of 510 million cubic meters annually, this year they will only be generating a total of 360m.cu.m.

Following several weeks of intensive negotiations with the companies that operate the plants, the Water Authority, Finance Ministry and the firms involved were able to agree on the 150m.cu.m. reduction, generating a saving of NIS 191m. for the year, according to the Water Authority.

This decrease in desalinated water use, combined with increasingly efficient standards imposed on local water corporations, enabled the 5% drop in water tariffs that occurred as of January 1, the authority said.

The Israeli government is able to partake in such negotiations with the desalination companies because the contracts operate on a "take or pay" principle.

In such a contract, the buyer pays only a fixed price rather than paying the much higher cost of generating additional desalinated water.

"In Israel we don't have water to spare – we have the capacity and the capability of producing water," Water Authority spokesman Uri Schor told The Jerusalem Post on Thursday. "All the contracts are 'take or pay.'" Because all the contracts are "take or pay," the government is not obliged to take the entire amount of water that the facilities are capable of producing, Schor said.

"The contracts were built from the beginning this way," he said. "We built a huge capability of producing a certain amount of desalinated water if we are in a critical position."

While seven drought years plagued Israel, the past two winters have provided sufficient rains to



reduce the production of expensive desalinated water, Schor said.

Nonetheless, if another such drought period – or worse – occurs again, the country is able to “pass it with no problem,” he said.

“When you have a good year then we will produce less water,” Schor added. “We reduced the amount of water from desalination when the cost for buying the water became higher than producing the water from natural sources.”

In addition to the significant improvement of natural water supplies, Israel has also had a more stable supply of water from sources like treated brackish water and wastewater, according to the Water Authority.

Looking at the breakdown of desalination facility operations for 2014, the Ashkelon site – owned 50% by the Delek Group’s (IDE) Technologies Ltd.

and 50% by Veolia – will produce 80m.cu.m. of water, rather than 118m.cu.m., the Water Authority said.

The Palmahim station, which is today run entirely by Granite Hacarmel Investments Ltd., will produce 65m.cu.m. of water, rather than 90m.cu.m., and the Hadera desalination facility – owned half by IDE Technologies and half by Shikun V’Binui – will generate 85m.cu.m., instead of 127m.cu.m.

The newest desalination facility at Soreq, which only came online this spring – under the 51% ownership of IDE Technologies, and 49% of Hutchison Water – will produce 120m.cu.m., rather than 150m.cu.m.

Although a future desalination at Ashdod, operated by Israel’s national water company Mekorot, will have an annual capacity of 100m.cu.m., the plant will only begin operations in around September, the Water Authority said.

With a quarter-year capacity of 25m.cu.m., the Ashdod facility will only produce about 10m.cu.m. this year, the authority explained.

As part of a trilateral memorandum of understanding that Israel signed with Jordan and the Palestinian Authority in early December, the former will be able to purchase 50-60% of the outputs from a future Aqaba desalination facility – which is slated to generate about 80m.cu.m. annually.

In return for purchasing this water from the Aqaba facility, Israel would roughly double its sales of water from Lake Kinneret (the Sea of Galilee) to Jordan.

When asked by the Post what the country's incentive is to partake in this agreement, considering the fact that Israel is reducing its own desalination output, Schor said the Water Authority could not comment on the issue.

“Desalination facilities to run at 70% capacity for 2014”, 02/01/2014, online at: <http://www.jpost.com/Enviro-Tech/Desalination-facilities-to-run-at-70-percent-capacity-for-2014-336935>

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### ❖ Israel's Knesset Looks to Become 'Greenest' Parliament on the Planet

A new environmental initiative launched by the Knesset will include an installation of solar planes, LED bulbs, water desalination, etc.

As a legislature that passes environmental laws, the Knesset must practice what it preaches, Speaker Yuli-Yoel Edelstein (Likud-Yisrael Beitenu) said Wednesday during the launch of the "Green Knesset" project, which will make the Israeli parliament the greenest in the world.

"Green Knesset," Speaker Edelstein's flagship project, is spearheaded by Knesset Members Dov Khenin (Hadash), Zvulun Kalfa (Habayit Hayehudi) and Nitzan Horowitz (Meretz), and it will be implemented under the supervision of Knesset Director-General Ronen Plott.

The multi-year project's goal is to convert the Knesset into a legislature that is guided in its conduct by the concept of sustainability (a multi-dimensional and interdisciplinary concept which examines our lives, as a whole, in terms of the environment, society and the economy).

Speaker Edelstein said that while the project required a significant financial investment, "it will bear fruit and return the investment," adding that the "Green Knesset" project constitutes a declaration of an "irreversible policy" led by parliament.

The project will consist of numerous activities, including educating MKs and Knesset employees on the environment and encouraging them to partake in activities related to the environment; publishing position papers on the issue; launching projects that will make the Knesset a more sustainable place; and making the everyday operational activities in the Knesset more sustainable as well.

Environmental Protection Minister Amir Peretz (Hatnua) said during the event: "At a time when my office is leading an environmental revolution in industry and in the residents' homes, the symbol of the country must become a leading element in the green revolution, because it is the Knesset's duty to protect the next generations, and protecting the environment is the way to do it. Those who want to think far must think green."

Wednesday's event marked the beginning of the first phase of the project, which will be implemented throughout 2014 and 2015. This phase will be characterized mainly by 13 ventures focusing on energy and water. Among other things, this phase will include the construction of a 4,500 square meter solar field for the production of electricity from renewable energy; replacing hundreds of bulbs with LED bulbs; replacing the air-conditioning systems with an energy center; automatically shutting down all of the computers at the end of the workday; measuring the amount of water used for irrigation in the Knesset and adopting a more economical water consumption model; the desalination of water from the Knesset's air-conditioning systems and using this water for irrigation and other purposes.

MKs, Knesset speaker launch project 'Green Knesset' (Photo: Itzik Harari, Knesset Spokesperson's Office)

Moreover, the saving of energy will reduce the level of carbon emissions from the Knesset and thus make the Knesset's ecological footprint smaller.

Some NIS 7 million (\$2 million) will be invested in these initiatives, and the average return from saving energy and water is estimated at NIS 1.5 million (\$430,000) a year, on average, after about five years.

This sum will be transferred to the "Green Fund," which will be designated for the continuation of the "Green Knesset" project (meaning the expansion into additional initiatives), as well as for the benefit of the employees, as is customary around the world.

All of the approved projects have been found to be economically feasible.

National Infrastructure, Energy, and Water Minister Silvan Shalom (Likud-Yisrael Beitenu) said the "Green Knesset" project will be a source of pride for Israel and will inspire other countries. "This is a blessed move of great importance. Encouraging energetic efficiency, the saving of electricity and advancing the use of natural gas and renewable energy will reduce pollution, preserve the



environment and save a lot of money," he said, adding that the project's principles and goals directly coincide with the values and projects being promoted by his office.

Naor Yerushalmi, director of Life and Environment, the umbrella organization for the environmental movement in Israel, said during the event that the environmental groups "welcome the Knesset's leadership in the sustainability field." By adopting environmentally conscious practices, Yerushalmi said, parliament "is showing that it is responsive to the concerns of the public and is setting a great example for public institutions and millions of citizens."

Along with the implementation of the initial phase of "Green Knesset," the task force in charge of the project continues to work on a multi-year work plan, which will be implemented during the second phase of the initiative. Among other things, the task force will discuss the Knesset's geographical surroundings, including the planning of a park based on the principles of sustainability, which will include a communal garden – in cooperation with the Jewish National Fund and the Society for the Protection of Nature in Israel. The plan will also be aimed at encouraging the use of public transportation and turning the Knesset into a building that educates on the environment.

It should be noted that the Knesset has already adopted some environmentally conscious practices: Knesset employees recycle paper and bottles and try as much as possible to avoid printing out documents. When they do, they use the duplex printing feature. Moreover, the Knesset's director general began to encourage employees to save electricity as soon as he assumed his duties.

"Israel's Knesset Looks to Become 'Greenest' Parliament on the Planet", 03/01/2013, online at:  
<http://us.shalomlife.com/health/21464/israels-knesset-looks-to-become-greenest-parliament-on-the-planet/>

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### ❖ Quest to reclaim land and rights

Green Palestine is working to return farmers their pride so they don't have to work for the colonists

So much has been said and written about the Palestinian story that the core issue has been mired in controversy and even buried in a seemingly archaeological site.

Unearthing it, one learns that the issue is all about the land; having led to decades of conflict, intifadas and which continues today with the daily suffering of Palestinians.

Green Palestine — a not-for-profit entity established in 2010 that seeks to make food security and development for rural and underserved Palestinians a priority — is the brainchild of a group of six like-minded Palestinians: disillusioned with the so-called and never-ending “peace process”, coming together from diverse backgrounds and eventually surmising that the struggle is all about the land.

Bassem Al Masry, the head of the initiative and the person who is passionately driving it, emphatically states, “We should settle our land. Palestinians should take back the land, not Israeli colonists. Our farmers are leaving their farms to work in Israeli colonies.”

If we can produce organic, clean and better food, control more of it and make it safe, we make Israelis lose business and leave. At present we buy most of our products from Israel.”

Dr Haytam Hassan, the president of Green Palestine, has noted an increase in the incidence of cancer, and attributes this to poisonous foods sold by Israel and the colonists to Palestinians without any controls.

Masry adds, “For us to survive, we have to produce cleaner foods, use clean energy and recycle the limited water we possess.”

“Israelis are pushing us out of the land, by any means possible. The same colonists who burn our olive trees, sell us our food. Palestinians, who work for these colonists have noted that Israelis have two separate production lines, one for us and another for them. We are convinced that our food is not only impure but also unfit for human consumption.”

Travelling with Masry and viewing an envisaged project in the West Bank village of Der Ibze, the struggle is in “Area C”, where Palestinians live but Israel has full security/military control over their lives and the terrain where colonists are slowly but surely grabbing the land away from them.

This is a classic case in point. An old Roman-era water well, which Palestinian farmers have always used to irrigate their lands, is being usurped by colonists under the protection of the Israeli army. Regular visits by them to swim there is their first step. Green Palestine has entered into the fray to assist the farmers in this battle.

Masry meets with the local farmers at the village community centre, to determine their needs, align with Green Palestine's vision so that, instead of being prescriptive, in a cooperative effort, they can reclaim not only the water well but the land that they are being systematically driven off.

The intent, according to Masry, is to secure funds to use in rehabilitating the water well and in doing so, reclaim it while also providing a steady stream of water to the farmers and encourage them to adopt Green Palestine's methodology, with organic farming so hopefully one of the by-products of this struggle may even be tourism.

Masry explains, "While everyone is focused or fixated on the politics of the conflict, the real battle is at the level of the land. Ours is a nonviolent and constructive way: no demonstration, no confrontations, but a simple assertion of our rights to our land and resources. Most of all, we are making farming economically viable, something that is neglected at present."

Travelling to another project in the village of Beilin — renowned for its weekly demonstrations against the Wall and recently for one of its residents, winning an Emmy Award for "5 Broken Cameras" — an old house has been renovated and converted into the Green Palestine Women Centre.

The centre has already begun to bear fruit, with the cultivation of organically grown mushrooms in the damp rooms within, regular training provided for women from the village in skills such as jam making and others related to adding value to farming products and woodwork skills for the youth.

Masry explains, "This centre is a place where the productive energies of the community shall be channelled and we envisage establishing a restaurant serving organic foods to visitors from the surrounding towns and cities. We have set up solar panels, a recycling water system and all the farming in the land around the house shall be organic compliant. Also we intent to showcase the project to farmers in general, who may have strayed from traditional farming methodology,"

Green Palestine is also involved in a project in Martyrs Square, which is housed around the land that was reclaimed after the sacrifices of locals led to the change of the route of the wall.

Moving on to Jenin in the north of the West Bank, Masry points out, “We planted 7,000 trees provided by the Palestinian Ministry of Agriculture, and through UNRWA we created work for many farmers. Thereafter, we began an ‘adopt a tree’ campaign through our website, which interested people are welcome to visit.”

The next project is a greenhouse for which UNDP provided the initial funding. Organic strawberry farming, a prototype for local farmers, with two families working it for the second year, is being facilitated by Green Palestine, which also markets the strawberries and shares in the accrued profits with the families and the local farming association partnering them.

Near the seam line, and opposite the road, a European funded “industrial park”, a joint Palestinian Government/Israeli project is being constructed and which is bound to take farmers away from their land. This is what Green Palestine is up against.

Masry explains, “Compounded by all the difficulties that Palestinian farmers face when compared to their Israeli counterparts, we pay almost four times more for water but we believe that through organic farming we may be able to not only keep our farmers on the land, we shall also be able to assist them in making farming economically viable.”

Masry walks the walk, as he personally puts his shoulder to the wheel and builds the infrastructure for the project and shows the farmers how to do it.

Down in Jericho, the lowest point on Earth, Green Palestine has initiated a pilot project that recycles green waste through a fermentation process to provide feed for the sheep and goats.

Masry explains, “By placing all the waste greens in the ground and mixing it with a local plant, the sugar content turns into protein, from 9 per cent to 40 per cent. As 70 per cent of cost to farmers is feed, we create a 40 per cent reduction and make it economically attractive”.

In the south of the West Bank, in the Hebron district, a park project is in its planning stage.

Masry, who all affectionately refer to by his nom de plume Abu Rami, is adamant, “Our focus is on rural Palestine. We want to keep our people on the land, make it economically viable for them. We don’t want them to leave the land for the cities and in the process lose Palestine.”



Green Palestine has taken on a challenge which is not only a Palestinian one, but a universal one that affects us all.

–Rafique Gangat, author of Ye Shall Bowl on Grass, is based in occupied Jerusalem

“Quest to reclaim land and rights”, 02/01/2013, online at: <http://gulfnews.com/news/region/palestinian-territories/quest-to-reclaim-land-and-rights-1.1273224>

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## ❖ Desalination as an Alternative for Getting Fresh Water and Electricity

"There is a lot of water on Earth, but more than 97% of it is salty and over half of the remainder is frozen at the poles or in glaciers. Meanwhile, around a fifth of the world's population suffers from a shortage of drinking water and that fraction is expected to grow".

Water scarcity is a major problem in many parts of the world affecting quality of life, the environment, industry, and the economies of developing nations. And, the Middle East and North Africa (MENA) region is considered as one of the most water-scarce regions of the world. Large scale water management problems are already apparent in the region.

While the MENA region's population is growing steadily, per capita water availability is expected to fall by more than 40-50% by the year 2050. Also, climate change is likely to affect weather and precipitation patterns, and the consequences of which may force the MENA region to more frequent and severe droughts. To help MENA region to some extent, the World Bank is taking the initiative to generate an improved understanding of water issues in MENA region and overview of available options under different scenarios of water supply and demand management with special focus on desalination.

To support research on potential projects in this area, the WPP co-funded an extensive study entitled "MENA Regional Water Outlook: Desalination Using Renewable Energy". The study assesses water availability and demand projections, as well as implications of climate change impacts on water in the Middle East and North Africa Region (MENA) up to 2050. Covering 21 countries, the report includes various technology scenarios for desalination plants using renewable energy. The assessment focuses on the use of Concentrated Solar Power (CSP) as a reliable energy source for the region. By presenting information on the generation potential and associated costs of desalination, the study is the first step in helping countries determine whether to promote such strategies in the long-term.

Egypt is one of the countries examined and others are Algeria, Bahrain, Jordan, Kuwait, Morocco, Oman, Qatar, Saudi Arabia, Turkey and the United Arab Emirates. The RE potential is now starting to be more seriously considered, says the report, driven by rapidly increasing energy usage, high

insolation rates, a young and empowered workforce, and an increasing awareness of the costs of burning natural resources.

The United Arab Emirates, Saudi Arabia, Jordan, Turkey, and Morocco, have ambitious solar power generation goals as well as evolving policies and regulatory frameworks to support these goals. Demonstration projects are being deployed in some countries, while large scale projects are being deployed in others. However, in a region undergoing dramatic political and social change, says the report, questions remain as to the long term outlook for solar energy.

Growth in desalination has increased dramatically as countries seek solutions to water scarcity caused by population growth, climate change, pollution and industrial development. In addition, the industry has done much to lower the cost of desalination. Advances in technology have led to increased energy efficiency, and greater economies of scale have also helped lower costs. The majority of new commissioned capacity is seawater desalination.

As of June 30, 2011, there were 15,988 desalination plants worldwide and the total global capacity of all plants online (e.g., in operation) was 66.5 million cubic meters per day (m<sup>3</sup>/d), or approximately 17.6 billion US gallons per day.

Existing desalination plants work in one of two ways. Some distil seawater by heating it up to evaporate part of it. They then condense the vapour-a process that requires electricity. The other plants use reverse osmosis. This employs high-pressure pumps to force the water from brine through a membrane that is impermeable to salt. That, too, needs electricity. Even the best reverse-osmosis plants require 3.7 kilowatt hours (kWh) of energy to produce 1,000 litres of drinking water.

Recent researches indicate that we can produce that much fresh water with less than 1 kWh of electricity, and no other paid-for source of power is needed. This process is fuelled by concentration gradients of salinity between different vessels of brine. These different salinities are brought about by evaporation. The process begins by spraying seawater into a shallow, black-bottomed pond, where it absorbs heat from the atmosphere. The resulting evaporation increases the concentration of salt in the water from its natural level of 3.5% to as much as 20%. Low-pressure pumps are then used to pipe this concentrated seawater, along with three other streams of untreated seawater, into the desalting unit.

To conclude, water demand and supply have become an international issue due to several factors: global warming (droughts are more often in arid areas), low annual rainfall, a rise in population rates during last decades, high living standards, and the expansion of industrial and agricultural activities. Fresh water from rivers and groundwater sources are becoming limited and vast reserves of fresh water are located in deep places where economical and geological issues are the main obstacles. Therefore, it has turned into a competition to get this vital liquid and to find more feasible and economical sources that can ameliorate the great demand that the world is living nowadays and avoid water restrictions and service interruptions to domestic water supply. And, desalination seems to be an excellent alternative for getting fresh water and electricity.

“Desalination as an Alternative for Getting Fresh Water and Electricity”, 01/01/2013, online at:  
<http://www.energybiz.com/article/14/01/desalination-alternative-getting-fresh-water-and-electricity>

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## ❖ Israel, Palestine and Jordan: Water Rights and the Red – Dead Sea Canal. A Zionist Project?

*The agreement for the two seas Canal connecting the Red and Dead Sea was summed up best by Israeli water minister Silvan Shalam who jubilantly described it following the December 9 signing ceremony at the World Bank headquarters as “a historic agreement that realises ... the dream of (founder of modern Zionism Theodore) Herzl.”*

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The canal was another strategic triumph for Israel’s conniving diplomacy even after the project was reduced to about one-tenth of its original size due to serious economic and environmental concerns raised by the World Bank.

The Zionist-envisioned project was repackaged and sponsored by Jordan as a must to save the Dead Sea, and building a large desalination plant providing each Israel and Jordan with eight billion to 13 billion gallons of fresh water annually.

According to Israeli and international environmentalists, Israeli government’s policies of over pumping from the Sea of Galilee and Jordan River – serving Jewish only colonies – was the main cause for the loss of nearly 30 per cents of the Dead Sea’s mass in the last 50 years.

Herzl’s repackaged vision includes articles tacitly granting Israel exclusive water rights in the supposedly shared Sea of Galilee and Jordan River’s water. For the tri-party agreement empowers Israel to transfer close to 13 billion gallons of fresh water from those bodies to Jordan and to sell the state of Palestine 8bn gallons of drinking water at preferential prices.

Even more cynical is for the state of Palestine to purchase water from Israel -mind you at a special discount – while Israel continues to expropriate West Bank’s water aquifers for the benefit of illegal Jewish-only colonies for free.

In addition to political concerns, environmentalists have warned that introducing new water composition from the Red sea brings a host of new invasive photosynthetic organisms which could lead to drastic negative consequences affecting the unique natural system of the Dead Sea.

Unlikely to solve the Dead Sea environmental degradation, international and Israeli environmentalists have alternatively suggested that “the reestablishment of the Jordan River to its natural state was a better solution to the decline of the Dead Sea than the proposed canal.”



While it would receive roughly half of the desalinated water from the project, the 100 miles brine pipeline will run exclusively through Jordanian territories to circumvent objections by Israeli environmental groups.

Lacking proper environmental oversight, a credible rupture in the high saline pipeline – running along known active earthquake fault – would cause irreparable damage for a main source of Jordan’s fresh groundwater in Wadi Araba.

Being the only party with positive return and no potential risks, the agreement provides Israel a free safety net to escape responsibility for the Dead Sea’s environmental calamity while realising an old Zionist strategic military vision adding a natural water course on Israel’s eastern borders. Economically, this project places Israeli water companies in a unique position to gain the most in building the waterway, associated desalination and power generation plants.

Jordan, on the other hand, is taking the biggest long term risk since a probable structural failure in the Canal system would lead to an incurable disaster for both the agriculture and ecosystem in the Jordanian valley.

In purchasing Israeli water, Palestine is sanctioning Israel’s theft of its water aquifers from occupied West Bank, while allowing Israel to continue syphoning the only lifeline for the Dead Sea.

**Jamal Kanj** ([www.jamalkanj.com](http://www.jamalkanj.com)) writes regular newspaper column and publishes on several websites. He is the author of “Children of Catastrophe,” *Journey from a Palestinian Refugee Camp to America*. A version of this article was first published by the *Gulf Daily News* newspaper.

“Israel, Palestine and Jordan: Water Rights and the Red – Dead Sea Canal. A Zionist Project?”, 31/12/2013, online at: <http://www.globalresearch.ca/israel-palestine-and-jordan-water-rights-and-the-red-dead-sea-canal-a-zionist-project/5363151>

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❖ **"Two seas canal" project vital for water-thirsty nation**

AMMAN, Jan 2 (KUNA) -- The planned "two seas canal" designed to pump water from the Red Sea to the depleting Dead Sea is a vital mega project for Jordan, one of the world top 10 nations that suffer from water scarcity.

Adnan Al-Zu'bi, the assistant secretary general for information affairs at the Jordanian Ministry of Water and Irrigation, confirmed to KUNA that Jordan is planning to execute the project to create new water resources which have been shrinking year after year.

He was alluding to a pact, signed by Jordan, Israel and the Palestinian Authority, at the World Bank headquarters, on December 9th of the past year. According to the "historic accord," a pipeline will be set up between the Red Sea and the Dead Sea to provide the three sides with water. Reportedly, the pipeline will bring about 100 million cubic feet of water a year from the Red Sea to the other sea to slow the drying up of the latter.

In his remarks to KUNA, Al-Zu'bi said the project also aims, in the first phase, to produce 90-100 million cm of water, to be desalinated in Al-Aqaba. He also confirmed that water would be pumped to the Dead Sea to halt the continuing depletion of water level, estimated one meter per annum.

The Jordanians' water share per capital, in 1946, stood at 3,600 cm annually, but currently it drastically dropped to only 145 cm, 15 percent lower than the internationally recognized line of "water poverty." Al-Zu'bi alluded dramatic depletion of the Jordanians' water share per capita to a chain of immigrations of refugees to the country since 1948, when Palestinians started fleeing their homeland. Settlement of Syrian refugees in the country aggravated the problem further, he added. Jordan receives 50 mm of rain water per year in southeastern regions and 600 mm in northwestern areas. But the country benefits from only eight percent of the rainfalls and evaporation is too high.  
(end) hf.rk KUNA 021126 Jan 14NNNN

“"Two seas canal" project vital for water-thirsty nation”, Hamad Al-Fahad, 02/01/2013, online at:  
<http://www.kuna.net.kw/ArticleDetails.aspx?id=2353408&language=en>

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❖ **‘Israel and the West Bank build a bridge over murky waters**

The new Memorandum of Understanding signed between Israel and West Bank in December 2013 goes some way to addressing Palestinian water shortages but it does not address the root causes of this shortage and the disparity in water supply between Israel and the West Bank.

The memorandum signed between Israel and the Palestinian Authorities stipulates that the Israeli water authority, Mekorot, will supply the West Bank with 20-30 million cubic metres of desalinated water a year. This will help to alleviate severe water shortages that currently beset the West Bank. In 2009 the World Bank reported that litres per capita availability in many areas of the West Bank fell far below WHO’s recommended guideline. WHO recommends 100 litres of water per capita per day (lpcd), but for a quarter of the population connected to the water supply network availability fell to below 50 lpcd.

The new supply of water that the West Bank will receive represents a 21.5% increase upon its current total supply of 139.6m cubic metres. This has the potential to increase water availability for each person in the West Bank by approximately 47 litres per day. Such an increase could bring the average total water supply in the West Bank closer to WHO’s optimal water supply recommendation.

The new memorandum is also a significant political achievement for the region. Both sides have managed to put the greater Arab-Israeli conflict aside and cooperate over water to improve the livelihoods of people in the West Bank. Such breakthroughs bring both sides together which may help to spur reconciliation and peace in the region.

However, whilst this agreement will supply the West Bank with much needed water, it will not help to get rid of some of the root causes behind the severe water shortages in the West Bank. The World Bank, Amnesty International and the UNHCR have all criticised Israel at times for how it has restricted Palestinian access to water in the West Bank. In the past, West Bank Palestinian communities have had their wells destroyed by the IDF. Palestinians have also been restricted from developing their own domestic water sources because of Israeli vetoes in a Joint Water Committee (JWC) that manages the water infrastructure in the West Bank. Such actions have had the effect of limiting the Palestinians water authority’s ability to develop its own domestic water supply system.

All the while, Israeli authorities have been known to promote the development of water infrastructure to Israeli settler communities in the West Bank to the detriment of the Palestinian population. Israeli authorities have also over-extracted groundwater from aquifers in the West Bank above an agreed quota with the Palestinians. Consequently, in 2009 the World Bank noted that ‘Palestinian per capita access to water resources in the West Bank is a quarter of Israeli access and is declining.’

Part of the water shortages can be put down the Palestinian Water Authority’s weakness; the PWA does recognise that it struggles to cater for the population of the West Bank and has asked for outside help to help improve its capabilities. Nevertheless, the new Memorandum of Understanding does nothing to change the conduct of Israeli authorities when it comes to water supply in the West Bank. Instead, the West Bank has now become more dependent upon Israel for its water supply; 49% of the water supplied to the West Bank will come from Israeli sources, up from 38% in 2009. Given the conduct of Israeli authorities in the past, this may be a cause for concern for some West Bank Palestinians.

Above all, it is important that the West Bank gets the water that it needs. It should not be a concern if this water comes from a foreign country or not, especially if hydro-political cooperation may facilitate cooperation in other areas. However, taking into consideration the conduct of Israel in the past and some of the reasons behind water shortages in the West Bank, it is important to question this agreement and consider what other measures may need to be taken in the region to ensure an equitable supply of water to the West Bank.

“Israel and the West Bank build a bridge over murky waters”, 30/12/2013, online at:

<http://www.theforeignreport.com/2013/12/30/israel-west-bank-build-bridge-murky-waters/>

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### ❖ The Red-Dead seas canal

THE agreement for the two seas Canal connecting the Red and Dead Sea was summed up best by Israeli water minister Silvan Shalam who jubilantly described it following the December 9 signing ceremony at the World Bank headquarters as "a historic agreement that realises ... the dream of (founder of modern Zionism Theodore) Herzl."

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"The Red-Dead seas canal", 31/12/2013, online at: [http://articles.timesofindia.indiatimes.com/2014-01-02/kochi/45797975\\_1\\_prawns-israeli-tech-farming](http://articles.timesofindia.indiatimes.com/2014-01-02/kochi/45797975_1_prawns-israeli-tech-farming)

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### ❖ Israeli Settlers Pump Sewage into Palestinian Village near Jenin

JENIN, December 30, 2013 (WAFA) – Israeli settlers from the Illegal Israeli settlement of Meirav Monday pumped waste water coming out of the settlement into the nearby Palestinian village of Jalboun, east of Jenin, according to local sources.

Director General of Marj Ibn Amer municipality, Helal Nassar, told WAFA that the municipality filed an official complaint against the Israeli side and Meirav’s settlers who deliberately pumped waste water into the village.

Locals expressed concern that their houses would be flooded by wastewater which causes serious health and environmental problems and destroys agricultural crops.

The municipal council called upon human rights organizations to put an end to these practices.

“Israeli Settlers Pump Sewage into Palestinian Village near Jenin” ,Maan, 03/01/2014, online at:

<http://mideastenvironment.apps01.yorku.ca/2014/01/israeli-settlers-pump-sewage-into-palestinian-village-near-jenin-maan/>

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### ❖ ‘Kufranjah Wastewater Treatment Plant expansion to conclude this year’

AMMAN — The expansion of the Kufranjah Wastewater Treatment Plant in Ajloun Governorate is expected to be completed later this year, according to government officials.

The expansion, which is also accompanied by a project to extend new sewage networks in the governorate, some 70km northwest of Amman, will double the plant’s capacity, thus improving the area’s environment and health conditions, Water Minister Hazem Nasser said.

“The plant will be operational by the end of this year to end the problem of spreading cesspits in the area. This will help preserve underground water from pollution, improve the environment and support local communities...” Nasser said in a statement e-mailed to The Jordan Times.

The minister highlighted that area residents will be provided with treated wastewater discharged from the plant for the irrigation of fodder crops.

Expansion of the project commenced in 2012 with the aim of raising the facility’s daily capacity from 9,000 cubic metres to 18,000 cubic metres of wastewater.

The expansion of the facility and the sewage networks project are being implemented at a cost of over JD10 million, 80 per cent of which are funded by the German Development Bank (KfW).

The ministry’s spokesperson, Omar Salameh, said there are 27 wastewater treatment plants in the Kingdom that treat 122 million cubic metres (mcm) of water per year, 115mcm of which are used for industrial purposes and irrigating certain crops.

He noted that the ministry seeks to maximise the reuse of treated wastewater for agriculture and industry, highlighting that treated wastewater is considered a source of water for certain purposes.

Jordan, which is considered the world’s fourth water poorest country, suffers an annual water deficit of 500mcm and the per capita share of water does not exceed 150 cubic metres per year, well below the water poverty line of 500 cubic metres per year.

“Kufranjah Wastewater Treatment Plant expansion to conclude this year”, Jordan Times, 03/01/2014, online at: <http://mideastenvironment.apps01.yorku.ca/2014/01/kufranjah-wastewater-treatment-plant-expansion-to-conclude-this-year-jordan-times/>

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### ❖ **Authorities to revamp Ajloun water networks**

AMMAN — The Ministry of Water and Irrigation has launched a project to rehabilitate water networks in Ajloun Governorate, according to government officials.

Under the project, a local contractor will renovate water systems in Ajloun in the north of the country, increase the capacity of pumping stations and improve the governorate's water conveyors, Water Minister Hazem Nasser said.

“The project, which will cost JD2 million, seeks to improve water supply, especially in the north during summer, when water demand surges, with the northern region hosting thousands of Syrian refugees,” Nasser said in a statement e-mailed to The Jordan Times on Monday.

The ministry's spokesperson, Omar Salameh, told The Jordan Times that the project is funded under the Gulf Cooperation Council (GCC) grant, noting that extending new water networks in Ajloun, some 70km northwest of Amman, seeks to prepare its infrastructure for receiving water from the Disi Water Conveyance Project.

In 2011, the GCC allocated \$5 billion to finance development projects in Jordan during the period 2012-2016.

The grant is divided between Saudi Arabia, Kuwait, the United Arab Emirates and Qatar, with each country paying \$1.25 billion.

A similar project will also be implemented in Jerash at a cost of almost JD1.3 million, according to the minister, who signed the projects agreements with local contractors on Sunday.

The ministry is undertaking scores of projects in the northern region to rehabilitate the networks towards receiving additional amounts of water, when the ministry constructs a major pipeline from the Abu Alanda Reservoir in Amman to the Zaatari water station in Mafraq.

The pipeline, construction of which is planned to commence in the second quarter of next year, is designed to channel 30 million cubic metres per year to the north.

The northern region suffers from an acute water shortage caused by limited resources, violations to main water lines and deteriorating networks, while the situation has worsened with the influx of Syrian refugees, according to ministry officials.

The total number of Syrians living in Jordan is estimated at over 1.3 million, over half-a-million of whom are refugees who arrived in the Kingdom following the onset of the conflict in Syria in March 2011, according to official figures.

Over 70 per cent of the Syrian refugees in Jordan live amongst host communities, while the rest are accommodated at the Zaatari Refugee Camp in Mafraq Governorate and the Mreijeb Al Fhoud Camp in Zarqa Governorate.

“Authorities to revamp Ajloun water networks”, Jordan Times, 03/01/2014, online at:

<http://mideastenvironment.apps01.yorku.ca/2014/01/authorities-to-revamp-ajloun-water-networks-jordan-times/>

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### ❖ **Egypt Supports Development in Nile Basin States – Minister**

In an interview with a CBC satellite channel program, Water Resources and Irrigation Minister Mohamed Abdel Motleb said that Egypt supports the development of any Nile basin country as long as such development will not harm the interests of the Egyptian citizens.

He added that he backs all efforts to increase Egypt's share of the Nile water according to comprehensive studies and concluded agreements with the Nile riparian states that do not violate the international law.

There are priorities in the State's plan to increase its Nile water quota, the minister said, noting that South Sudan has abundance of Nile water and that Egypt is in full agreement with the Nile basin states to develop their water resources.

About the investment opportunities in the Congo River, he said that the talk about the presence of investors to fund the linkage project between the Congo and Nile Rivers will not be a substitute for our rights in the Nile River.

“Egypt Supports Development in Nile Basin States – Minister”, 03/01/2013, online at:  
<http://allafrica.com/stories/201401031137.html>

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## ❖ Egypt to Cooperate With Nile Basin Countries for Water Security

Egypt is keen on cooperating with all Nile Basin countries in a manner that benefits all parties, Foreign Minister Nabil Fahmy said on Tuesday.

"Egypt's water security is an indispensable part of the country's national security and it cannot be ignored," Fahmy said, adding that "there are historic and legal rights that cannot be overlooked by any country."

Ethiopia started diverting the course of the Blue Nile, the main tributary of the Nile River, in May as part of its plan to build a hydroelectric dam that generates electricity.

The "Renaissance Dam" is built along the river that provides Egypt with about 60 percent of its annual 55 million cubic metres of Nile water.

This move sparked extensive arguments considering how that would affect Egypt's share of the Nile water.

Egypt and Ethiopia are members of the Nile Basin Initiative (NBI), a partnership among Nile states aimed at sharing the river's socio-economic benefits and promoting regional security.

Three of the Nile Basin countries - Egypt, Ethiopia and Sudan - formed an expert committee to study the project.

The committee issued a report, unanimously approved by the three countries, on the potential damages of the dam and recommendations to avoid them in June.

The experts convened again in December and agreed to form another committee to look into the means of implementing their final recommendations.

Representatives of Egypt, Ethiopia and Sudan are scheduled to meet in January in order to discuss issues related to the Nile water security

"Egypt to Cooperate With Nile Basin Countries for Water Security", 31/12/2013, online at:  
<http://allafrica.com/stories/201312310763.html>

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### ❖ Ethiopia aims to finish dam in 3 years

*Project manager Semegnew Bekele described the mega-dam as a "flagship" project for Ethiopia, ultimately aimed at improving citizens' lives.*

Ethiopia hopes to finalize construction of its \$4.7 billion hydroelectric dam project on the Nile River within three years, the director of the project said.

"Implementation has been going according to schedule," project manager Semegnew Bekele told Anadolu Agency, noting that the dam would be 30 percent complete within a few months.

The Grand Renaissance Dam, which is being built in Ethiopia's Benishangul-Gumuz Regional State near the border with Sudan, will allow the country to generate 6,000 megawatts of electricity.

Bekele described the mega-dam as a "flagship" project for Ethiopia, ultimately aimed at improving citizens' lives. "But not only Ethiopians will benefit from the project," he said.

The hydroelectric project can also benefit downstream countries, which had initially been worried about the project's anticipated impact on their share of Nile water, said Bekele.

"It will prevent flood accidents from occurring each year in Sudan, help prevent silting up dams in Sudan and Egypt, and save significant amounts of water currently being wasted due to evaporation from dams in downstream states," he argued.

What's more, he added, a portion of the electricity generated by the dam can be exported to neighboring countries.

Ethiopia's plans to build Africa's largest hydroelectric dam had raised fears in downstream Egypt and Sudan that the new dam would sharply reduce their share of Nile water, which for both countries represents the main source of water.

In May of last year, Ethiopia diverted the flow of the river, raising alarm bells in Egypt.

A committee of experts from Egypt, Ethiopia and Sudan was drawn up in 2011 and tasked with assessing the dam's environmental, economic and social impact on downstream countries.

A few days after Ethiopia diverted the river, the committee – which also included international experts – called for carrying out further studies on safety issues related to the dam's construction and their expected impact on Egypt and Sudan.

Ethiopia asserts that the new dam will benefit Egypt and Sudan, since the electricity generated by it will be available for purchase by the two countries.

Salini, an Italian company, is responsible for civil work on the dam, while all hydro-mechanical and electro-mechanical work is being carried out by a local firm. Some of the project's costs are expected to be borne by citizens of Ethiopia in the form of bond purchases.

According to a document issued by Ethiopia's Foreign Ministry, the country has long been interested in exploring the possibility of building a major dam on the river.

In 1927, Ethiopia reached an agreement with the J.G White Engineering Corporation of New York for a number of engineers and experts to visit Lake Tana and look into the feasibility of building a dam at the source of the Blue Nile.

Egypt and Sudan had initially based their objections to the dam on a colonial-era agreement that gives the two countries the lion's share of Nile water.

However, in December, Sudanese President Omar al-Bashir confirmed his country's support for the Ethiopian dam project, noting that Khartoum stood to benefit from the electricity thus generated.

It was the first time for al-Bashir to voice Sudan's official support for the dam.

Ethiopia, for its part, insists the new dam poses no threat to Egypt's historic share of Nile water

“Ethiopia aims to finish dam in 3 years”, 04/01/2014,online at:  
<http://www.worldbulletin.net/?aType=haber&ArticleID=126213>

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### ❖ Kalabagh Dam: PTI wants national consensus

*Pakistan Tehreek-e-Insaf said on Friday that it will not support the construction of the Kalabagh dam unless there was a 'national consensus' over it.*

The party chief, Imran Khan said that PTI being a national political party could not consider the construction of all controversial dams including the Kalabagh Dam unless there is a national consensus over them.

“For Kalabagh Dam also, I have always maintained that it cannot be considered unless there is national consensus in its favour. This is the long-standing viewpoint of the PTI and of myself,” Khan stressed in an official statement.

His reaction comes after Awami National Party’s criticism, which according to Imran misrepresented PTI’s official stance on this controversial project that aims to produce 4,000 megawatts of electricity.

“PTI’s position on the Kalabagh Dam is clear on building of dams in Pakistan,” Imran maintained, adding that dams must be built after consensus has been evolved on them.

He added that no project could be feasible if it created divisions and antagonisms amongst the provinces. He reiterated that PTI was sensitised to the interests of all the people of Pakistan and believed in the principle of national consensus-building.

“Kalabagh Dam: PTI wants national consensus”, 04/01/2014, online at: <http://tribune.com.pk/story/654694/kalabagh-dam-pti-wants-national-consensus/>

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### ❖ **Big dams to be built only after consensus, says Ahsan Iqbal**

Federal Minister for Planning and Development Ahsan Iqbal assured on Saturday that the construction of major water reservoir projects in the country, including Kala Bagh Dam, would not be started without holding consultations with the provinces concerned.

He said this while speaking to media persons after attending a consultative workshop held at the Sindh Secretariat on the proposed Pakistan Vision-2025, for the development of the country and for the 11 five-year development plan (2013-2018). The provincial Planning and Development Department organised the consultative workshop where representatives of federal and Sindh governments expressed their desire to collaborate with each other for the implementation of the Pakistan Vision-2025.

Speaking on the occasion, Sindh Chief Minister Syed Qaim Ali Shah formally invited Prime Minister Nawaz Sharif to visit Sindh for jointly laying the foundation stone of the much-anticipated Thar coal power generation project.

The technocrats belonging to the Sindh government and the province at large urged the federal government representatives to reopen Sindh-Rajasthan border for the promotion of regional trade as like on the pattern of Indian and Pakistani Punjab border.

They were of the view that the accords signed between the Indian and Pakistani governments for boosting regional trade provides for opening the Munabao-Khokhrapar trade route between India and Pakistan on Sindh-Rajasthan border, but so far there has been no progress between the two neighbouring countries on this count.

The representatives of Sindh Engro Coal Mining Company expressed reservations over the working of the state regulatory institutions related to power and oil & gas sectors, saying, there was a need to remove impediments in the way of long unfulfilled development of Thar coal power project.

They said that the officials related to the National Electric Power Regulatory Authority and the Oil & Gas Regulatory Authority did not duly perform their duties and obligations, while they also used to make undue interference in the working of the provincial government's institutions related to the energy sector.

Opposition member of Sindh Assembly Haji Shafi Jamot lodged protest on the glaring environmental issue of unabated discharge of untreated effluents into Arabian Sea at the Karachi's coastline, which had been playing havoc with the very survival of marine life in the territorial waters of Pakistan.

Federal Minister Ahsan Iqbal assured the opposition legislator that a meeting would soon be convened with the representatives of concerned government departments for resolving the issue of discharge of untreated sewerage and industrial effluents into the Arabian Sea.

Sindh CM's Adviser on Finance Syed Murad Ali Shah and other irrigation experts of the province opposed the federal government's notion to include planning on the proposed major water reservoir projects including Kala Bagh Dam in the Pakistan Vision-2025.

Later talking to media, Ahsan Iqbal said that the government would not make progress on the construction of major water storage projects without having necessary consultations with the provinces concerned since the government has presently been working on the water reservoir projects like Dasu, Diamer and Bhasha dams, for which consensus has been evolved among the provinces.

He said that the federal government would continue with its practice of having necessary consultations on quarterly basis with the concerned provincial governments on national development plans and goals. The provincial governments had to perform a major role for the cause of national development while the concerned political parties despite having divergence on political issues have broader consensus on the issue of progress and development of the country, he added.

To a question, the minister said that the national development was highly dependent on the abundant availability of energy resources and in this regard due efforts should be made to reduce the costs being incurred on electricity production in the country. He said that there was a need to change the present ratio of energy mix, as up to 70 per cent electricity produced in the country was generated through furnace oil, which was obviously a highly expensive option.

Ahsan Iqbal said that the federal government would not go for outright and complete privatisation of the national institutions but instead 26 per cent shares of such national organisations would be divested in order to attract investment from the private sector for improving the functioning of these organisations.

He said that the present government has inherited massive financial losses of the Pakistan International Airlines to the tune of Rs 36 billion and in this regard private sector's investment in the national flag carrier would surely change financial position and working of the PIA.

Also speaking on the occasion, Sindh Chief Minister Syed Qaim Ali Shah said that consultative workshop participants discussed in detail energy and development projects and programmes being envisaged for Sindh.

He said that the Sindh government had raised the issue before the concerned federal government authorities vis-à-vis the delay in the implementation of the projects of alternate and renewable energy and Thar coal power generation project.

The consultative session has proved beyond doubt that Sindh and federal governments had the shared vision and policy of overcoming energy shortage and crisis in the country, he said, adding that the representatives of both the federal and provincial governments have resolved with consensus to continue with their consultation and collaboration on electricity and water projects of Sindh.

Earlier speaking at the workshop, Qaim Ali Shah stressed the need for establishing a developmental mechanism, which ensures equal economic and social opportunities with special attention to the deprived strata of society.

He said that Sindh happens to be a rich province in terms of natural and energy resources, adding, God has blessed this province with abundant resources of oil and gas i.e. 180 billion tonnes of coal reserves in Thar, wind corridor with massive potential of energy production, fertile land, resources and raw material for industrialisation, in addition to the geographical advantage of being blessed with a sea port.

He said that Sindh contributes 70 per cent of total oil output of the country; whereas the total potential of Thar coal energy resources would be sufficient enough to generate electricity for the country for the coming 200 years.

Sindh has one of the most feasible wind corridors specially in Gharo and Keti Bunder spread over 60 kilometres along the coastline, he said and added that the power generation capacity of the wind corridor was over 55,000 megawatts and even in present situation the Sindh government would be able to produce 15000 MWs electricity by 2025, while 325 MWs would be produced within next two to three years.

Qaim Shah said that by virtue of indigenous resources, the solution of energy crises lies with Sindh and through development policies of the country, foreign investment could be attracted in this area. Similarly, he added, Sindh has fertile land for which the policies and extension practices in agriculture need to be synchronised in such a way that on the one hand the government would be able to enhance the per acre agricultural yield and on the other hand rural poverty could be reduced by formulating specific value addition policies.

Also speaking at the workshop, the federal minister for planning and development said that there were seven main factors for the preparation of Pakistan Vision-2025 and the 11th five-year plan, and these factors were: energy security, self reliance in growth rate, development of human resources /

social development, value addition in production units, modernisation and regional connectivity of infrastructure, promotion of small and medium enterprises, and democratic governance reforms.

He said that after the introduction of the 18th Constitutional Amendment, the provincial governments had been delegated more powers and as such holding consultation and forging political stability bear essential significance for the planning and development of the country.

“Big dams to be built only after consensus, says Ahsan Iqbal”, 05/01/2014, online at:

<http://www.thenews.com.pk/Todays-News-4-224541-Big-dams-to-be-built-only-after-consens>

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❖ **Draft groundwater policy bypasses people's control'**

MARGAO: Savio Correia, a member of the Goa State Environment Protection Council (GEPC), expressed strong reservations against some of the provisions contained in the draft "Goa Groundwater Policy 2013". In a letter to the water resources department (WRD) which had invited opinions and suggestions from the public to be incorporated in the final policy, Correia pitched for wider consultation with experts, environmentalists, hydro geologists, civil society, NGOs, and other stakeholders before finalizing the policy.

He has strongly suggested that the draft policy be placed before the Goa State Environment Protection Council at its next meeting for discussion and approval.

"In addition, it must be circulated to all village panchayats and municipal corporations/councils for their feedback. Inputs from the Central Ground Water Board could also be sought. Mere notice in few local newspapers and twenty-day period for response is grossly insufficient," Correia said.

In his letter to the WRD, Correia has pointed out that the draft policy "totally bypasses community control over groundwater resources and instead focuses on government control and that it only seeks to strengthen the exclusive control of the government machinery over groundwater, and remains locked in the paradigm of bandharas (small dams), check dams, canals etc with their big budgets."

"The draft policy appears to have been framed keeping only the interests of the water-tanker lobby, starred hotels and water-consuming industries in mind," Corriea remarked in his letter to the WRD. "The Goa Groundwater Policy ought to be people-centric and recognize communities as the rightful custodians of water. Groundwater is too precious a natural resource to be left entirely to the government to regulate," Correia said.

The legal consultant and RTI activist has further underscored the need to have market-based initiatives for groundwater conservation and recharge.

"The draft policy ought to lay down clear guidelines for the evaluation of new requests for

groundwater abstraction for commercial purposes as well as the renewal of existing ones on the basis of environmental impact assessment and mitigation of any adverse impact including replenishment. The policy ought to include mandatory recycling/reusing of waste groundwater coupled with recharge measures by the end-user in case of abstraction by hotels, industries and other commercial purposes," Corriea added.

Stating that that WRD has "totally failed and neglected in enforcing the mandate given under the Goa Groundwater Regulation Act and Rules," Corriea pointed out that it has been ineffective in checking blatant and rampant over-exploitation of ground water by industries and the water tanker lobby.

"The draft policy has failed to acknowledge this important aspect. In fact, it seeks to dilute the otherwise stringent statutory provisions, probably preparing a back-door entry for amendments to the existing law. I would submit that the policy ought to spell out how the enforcement and surveillance machinery is proposed to be strengthened," Correia said.

"Draft groundwater policy bypasses people's control", 03/01/2014, online at:  
<http://timesofindia.indiatimes.com/city/goa/Draft-groundwater-policy-bypasses-peoples-control/articleshow/28300608.cms>

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[WWW.ORSAM.ORG.TR](http://WWW.ORSAM.ORG.TR)



❖ **Asia, Africa, Mideast, Eastern Europe, Central & South America:**

**Study shows strong growth in demand for water treatment equipment**

World demand for water treatment equipment is expected to grow 6.9 percent per year to \$53.4 billion in 2017. Developing parts of the world -- the Asia/Pacific and Africa/Mideast regions, Eastern Europe, and Central and South America-- are expected to show strong growth, with gains supported by improved access to treated drinking water and sanitation facilities, particularly through greater use of filtration and membrane systems. Expanding manufacturing and industrial activities requiring water treatment equipment such as membrane systems and disinfection equipment will also promote growth in these regions. These and other trends are presented in World Water Treatment Equipment, a new study from The Freedonia Group, Inc., a Cleveland-based industry market research firm.

WORLD WATER TREATMENT EQUIPMENT DEMAND (million dollars)					
Item	2007	2012	2017	% Annual Growth	
				2007- 2012	2012- 2017
Water Treatment Equipment Demand	28765	38300	53350	5.9	6.9
North America	9445	11930	15990	4.8	6.0
Western Europe	7360	8360	10560	2.6	4.8
Asia/Pacific	7455	10980	16580	8.1	8.6
Central & South America	1155	1610	2270	6.9	7.1
Eastern Europe	1235	1830	2590	8.2	7.2
Africa/Mideast	2115	3590	5360	11.2	8.3

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Increasing standards for process and supply water in manufacturing and other industrial applications in all regions will contribute to strong growth prospects for membrane equipment. Membrane equipment demand will also be promoted by greater interest in water reuse, particularly in developed countries, and by the growing market for water desalination equipment, particularly in the Middle East and Northern Africa. Disinfection equipment is also expected to benefit in North America, Western Europe, and other developed areas from the implementation of regulations limiting the levels of disinfection byproducts found in drinking water that has been treated with chemical disinfectants. The market for filtration equipment is relatively mature and faces competition from membrane systems and other newer technologies. As a result, demand for filtration equipment is

expected to grow at a more modest pace, with most gains occurring in the municipal markets in developing parts of the world.

“Asia, Africa, Mideast, Eastern Europe, Central & South America: Study shows strong growth in demand for water treatment equipment”, 02/01/2014, online at: <http://www.freshplaza.com/article/116482/Study-shows-strong-growth-in-demand-for-water-treatment-equipment>

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### ❖ Don't let our water be sold or exported

Water is California's gold. Groundwater basins are a battle ground where landowners must protect their water rights from modern-day claim-jumpers who include well financed entrepreneurs seeking to sell or export our water. Where does that leave landowners? Unless home owners and landowners take steps to protect their rights under California's law and Constitution, entities attempting to sell or export our groundwater water will take away or limit groundwater rights.

Protect Our Water Rights (POWR) is a newly formed group of overlying landowners who, by virtue of owning their property, have the right to pump and reasonably use water on their land. POWR has filed an action called "Quiet Title" in San Luis Obispo County Superior Court. Quiet Title is simple. Landowners are asking the court to confirm their right to pump. This doesn't mean that we will be embroiled in years of litigation. The governmental entities named in the suit can simply affirm they are not making any claims to limit or take away our water rights. If they take this simple step the case is over. We hope that our elected leaders take this wise and cost effective course of action.

A broader adjudication will be triggered if the governmental entities take the position that they are seeking to take away existing landowner rights. At this point the decision lies with our elected representatives.

A second group Paso Robles – Water Integrity Network (PR-WIN) has been formed to oppose the recently passed Urgency Ordinance. Our Supervisors decided that they had the right to vote away the water rights of landowners. PR-WIN filed a Writ of Mandate, a lawsuit seeking to reverse this unlawful and improper government action. Protection of our water resources is important and must be done in a measured way that protects the rights of everyone. The Urgency Ordinance was passed by a governmental entity which conveniently exempted itself from the water use limiting provisions of the ordinance. The pain of limited water use falls on landowners and farmers alone.

I'm concerned that the longer range goals of governmental entities are to sell and or export groundwater from the Paso Robles basin. If that is not the case, the entities can file papers in court that affirm that they are not making any claims to take away our groundwater rights.

Water policy in the Paso Robles basin is at a crossroads. We can take a measured, common sense approach. This would involve repealing the Urgency Ordinance in favor of a more measured science-based set of policies. Alternatively, we can determine everyone's rights in court and let the judge manage the basin. Which way this goes is up to our elected officials.

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*Cindy is a fifth generation Paso Robles, CA farmer working with her parents, brother and son at Steinbeck Vineyards and Steinbeck Vineyards & Winery. She is President of their various businesses and serves as director of marketing, sales and public relations.*

“Don’t let our water be sold or exported”, 01/01/2014, online at: <http://pasoroblesdailynews.com/dont-let-water-sold-exported/11777/>

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[WWW.ORSAM.ORG.TR](http://WWW.ORSAM.ORG.TR)

## ❖ As a New Year Dawns, A Reflection on Water

Some months ago, I was asked to contribute to an anthology focused on a basic question about our planet's future.

The question was this: “Do you think that humanity can find a way past the current global environmental and social crises? Will we be able to create the conditions necessary for our own survival, as well as that of other species on the planet? What would these conditions look like? In summary, then, and in the plainest of terms, do we have hope, and can we do it?”

My charge was to respond with no more than 250 words; of course, I chose to write about water.

As 2014 begins, I thought I'd share these words. They reflect, I hope, the profound shift in consciousness that is needed if we are to ensure that enough water is provided for all living things long into the future.

*In a world divided by race, tribe, gender, religion and so much more, it is water that connects us all. The molecules of H<sub>2</sub>O that comprise sixty percent of each of us have circulated across space and time throughout the ages. They move through the air, the trees, the birds and bees, and through you and me – and may have quenched a dinosaur's thirst so very long ago.*

*So, yes, there is hope. It is that we will know the soft rain and flowing water as the undeserved but precious gifts of life that they are – gifts to be shared among all living things. And that this knowing will unite us to humbly take our place in the planet's great cycles with respect for all that is, has ever been, and will ever be.*

*If we let it, this knowing changes everything.*

*As I reach to buy a cotton shirt, I think of the plants and insects whose existence might have been sustained by the seven hundred gallons of water consumed to make the shirt, and I retract my arm, go home filled with gratitude, and enjoy the evening birdsong with new depths of pleasure.*

– Sandra Postel, invited contribution to the *Global Chorus*, Rocky Mountain Books, expected release in Fall 2014.

“As a New Year Dawns, A Reflection on Water”, 02/01/2013, online at:

<http://newswatch.nationalgeographic.com/2014/01/02/as-a-new-year-dawns-a-reflection-on-water/>

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## ❖ **Angola: Construction of Laúca Dam to Cost Over AKZ 400 Billion**

Over 400 billion kwanzas is the amount to be invested by the Angolan government in the construction of the Laúca Dam, located in northern Kwanza Norte province, which will have an installed capacity of 2060 Mega Watts (MW).

This was said to Angop on Tuesday in Luanda by the Minister of Energy and Water, João Baptista Borges.

He recalled that at this point tunnels are being built for the diversion of the river, an activity that will end by March 2014.

At this stage, he added that the technicians are also digging tunnels to give access to the machinery house, where equipment will be installed for the manufacture of the concrete for the dam structures.

The dam is expected to start producing power from the third quarter of 2017.

The minister also announced the rehabilitation works of the Cambambe Dam, which is expected to be completed by the end of 2015.

"With the conclusion of this project, the Cambambe Dam will as from 2016 have an installed capacity of 960 MW, against the current 180 MW", he said.

Concerning the modernisation of the hydroelectric facilities all over the country, the minister highlighted the rehabilitation of the Gove Dam in the central Huambo province, which is already operating with an installed capacity of 60 MW, and the Matala Dam in Huila province, which benefitted from improvement works.

"The Lomaum and Mabubas Dams, destroyed during the war, were also rehabilitated although Lomaum Dam is not yet producing energy as the transmission line is still being placed, expecting to be completed in April 2014", the minister said.

He reported that his ministry is undertaking an infrastructural development plan that will enable the country to reach 9.000 MW of installed capacity by 2025, which is the major challenge for the sector.

"Angola: Construction of Laúca Dam to Cost Over AKZ 400 Billion", 02/01/2013, online at:  
<http://allafrica.com/stories/201401021589.html>

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### ❖ State mulls over two new dams to curb city water shortages

**Nairobi, Kenya:** National Treasury has given clearance for construction of Maragwa and Ndarugu dams in a public-private partnership arrangement. Completion of works for the two dams is expected to ease ongoing water supply deficits within Nairobi City.

In a notice appearing this week in the local dailies, Treasury said the Nairobi Bulk Water Supply project has been approved by the Cabinet in a list that comprises 47 public-private projects.

Available figures indicate that Nairobi has a water supply deficit of over 150,000 cubic metres.

“The Athi Water Services Board has identified these two dams and is in the process of sinking them. At present, we still have capacity problems and not even large amounts of rainfall can improve the water supply situation in Nairobi,” said Mbaruku Vyakweli, Corporate Affairs Manager at Nairobi Water and Sewerage Company.

Nairobi obtains the largest bulk of its water supply – at 80 per cent – from Ndakaini Dam, 15 per cent from Sasumua, 3 per cent from Ruiru Dam and 2 per cent from Kikuyu Springs.

“We have been on a strict water distribution programme to ensure that all customers have water,” said Vyakweli.

Available figures from Athi Water Services Board indicate that demand for water in Nairobi is likely to increase to 908,415 cubic metres per day by 2017.

### Supply targets

According to these estimates, the demand will continue to increase in subsequent years at approximately 1,037,721 m<sup>3</sup>, 1,510,188 m<sup>3</sup> and 1,811,127 m<sup>3</sup> per day in 2020, 2030 and 2035 respectively.

The Nairobi Water Supply Master Plan has been developed by the Athi Water Services Board with funding from the World Bank and the French Development Agency (AFD). It details strategies to meet universal water supply targets for Nairobi and 13 satellite towns by 2035.

At present, the city's water supply is hit by low pressure in the network, leaks in distribution reticulation, deteriorating status of pipes, challenges in tracking of illegal connections, lack of adequate coverage of consumers and vandalism of controls.

The master plan identifies new groundwater sources in Nairobi and adjoining districts that have been tested and proved fit for human consumption.

Two, in Kiunyu and Ruiru, are estimated to have a capacity of 64,800 cubic metres per day. Diversion and transfer of rivers in the Central highlands is projected to catalyse development of new reservoirs, according to the plan.

The proposed Northern Collector Phase I is meant to divert and transfer Irati, Gigigie and Maragua rivers while Phase II plans to divert and transfer South Mathioya, Hembe, Githugi and Northern Mathioya rivers. The plan also proposes to construct the Maragua Reservoir whose yield is dependent on cross-basin transfer and varies for different scenarios. Another dam is proposed at Ndarugu, with Chania and Komu rivers transfer.

The Athi Water Services Board has been seeking financiers and utilities to mobilise resources to install 25,000 new connections annually to meet the 2035 target.

The Water Master Plan project's value will be measured by the changes it brings to the millions of water consumers in Nairobi.

"State mulls over two new dams to curb city water shortages", 02/01/2014, online at:

[http://www.standardmedia.co.ke/mobile/?articleID=2000101385&story\\_title=state-mulls-over-two-new-dams-to-curb-city-water-shortages](http://www.standardmedia.co.ke/mobile/?articleID=2000101385&story_title=state-mulls-over-two-new-dams-to-curb-city-water-shortages)

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## ❖ Kerry Quietly Makes Priority of Climate Pact

Secretary of State John Kerry, center, arrived outside Tel Aviv on Thursday. His work on the Middle East has drawn more attention than his environmental efforts.

WASHINGTON — As a young naval officer in Vietnam, John Kerry commanded a Swift boat up the dangerous rivers of the Mekong Delta. But when he returned there last month as secretary of state for the first time since 1969, he spoke not of past firefights but of climate change.

“Decades ago, on these very waters, I was one of many who witnessed the difficult period in our shared history,” Mr. Kerry told students gathered on the banks of the Cai Nuoc River. He drew a connection from the Mekong Delta’s troubled past to its imperiled future. “This is one of the two or three most potentially impacted areas in the world with respect to the effects of climate change,” he said.

In his first year as secretary of state, Mr. Kerry joined with the Russians to push Syria to turn over its chemical weapons, persuaded the Israelis and Palestinians to resume direct peace talks, and played the closing role in the interim nuclear agreement with Iran. But while the public’s attention has been on his diplomacy in the Middle East, behind the scenes at the State Department Mr. Kerry has initiated a systematic, top-down push to create an agencywide focus on global warming.

His goal is to become the lead broker of a global climate treaty in 2015 that will commit the United States and other nations to historic reductions in fossil fuel pollution.

Whether the secretary of state can have that kind of influence remains an open question, and Mr. Kerry, despite two decades of attention to climate policy, has few concrete accomplishments on the issue. The climate bills he sponsored as a senator failed. At the United Nations [climate summit](#) meeting in Copenhagen in 2009, Mr. Kerry, then a senator from Massachusetts, labored behind the scenes to help President Obama broker a treaty that yielded pledges from countries to cut their emissions but failed to produce legally binding commitments.

“He’s had a lot of passion, but I don’t think you can conclude he’s had any success,” said Senator John McCain, Republican of Arizona, who has worked on climate legislation with Mr. Kerry in the past.

Yet climate experts point to one significant, recent accomplishment. As a result of midlevel talks Mr. Kerry set up to pave the way for a 2015 deal, the United States and China agreed in September to jointly phase down production of hydrofluorocarbons, greenhouse gases used in refrigerators and air-conditioners.

“He’s pushing to get climate to be the thing that drives the U.S. relationship with China,” said Timothy E. Wirth, a former Democratic senator from Colorado who now works on climate change issues with the United Nations Foundation.

For decades, the world has been skeptical of American efforts to push a climate change treaty, given the lack of action in Congress. But Mr. Obama has given Mr. Kerry’s efforts some help. In September, the Environmental Protection Agency began issuing regulations forcing cuts in carbon pollution from coal-fired power plants, the largest source of greenhouse gas emissions in the United States.

The rules, which can be enacted without Congress, have effectively frozen construction of new coal-fired plants and could eventually shutter existing ones. Republicans criticize the rules as a “war on coal,” but abroad they are viewed as a sign that the United States is now serious about acting on global warming.

“It has not gone unnoticed that this administration is now much more engaged on climate change,” said [Jake Schmidt](#), the international climate policy director for the Natural Resources Defense Council. “Every international negotiator understands it.” When Mr. Kerry took office, Mr. Schmidt said, “the dynamic changed quite a bit.”

Shortly after Mr. Kerry was sworn in last February, he issued a directive that all meetings between senior American diplomats and top foreign officials include a discussion of climate change. He put top climate policy specialists on his State Department personal staff. And he is pursuing smaller

climate deals in forums like the Group of 20, the countries that make up the world's largest economies.

“He’s approaching this creatively,” said Heather Zichal, [who recently stepped down](#) as Mr. Obama’s top climate adviser and worked for Mr. Kerry from 2002 to 2008. “He’s thinking strategically about using other forums.”

But Mr. Kerry’s ambitious agenda faces enormous obstacles.

Not only must he handle difficult negotiations with China — the world’s largest emitter of greenhouse gases — for the 2015 treaty, but the pact must be ratified by a Senate that has a long record of rejecting climate change legislation. “In all candor, I don’t care where he is, nothing is going to happen in the Senate for a long time,” Mr. McCain said.

The effort is complicated by the fight over the Keystone XL pipeline, which, if approved by the State Department and Mr. Obama, would bring carbon-heavy tar sands oil from the Canadian province of Alberta to refineries on the Gulf Coast — and infuriate environmentalists. Approval of the pipeline could blacken Mr. Kerry’s green credentials and hurt his ability to get a broader climate deal.

Mr. Kerry is nonetheless forging ahead. “One of the reasons the president was attracted to Kerry was that we were going to make climate change a legacy issue in the second term,” said Benjamin J. Rhodes, the White House deputy national security adviser.

Former Vice President Al Gore, [who won a Nobel Prize](#) for his efforts to fight climate change, praised Mr. Kerry’s longtime focus on global warming. “He has continued to prioritize the issue even in the face of strong political resistance,” Mr. Gore wrote in an email. Mr. Kerry, he said, “has the rare opportunity to advance international negotiations at a critical time.”

In the 1980s and 1990s, Mr. Kerry worked closely with Mr. Gore, then a senator from Tennessee, on climate change policy on Capitol Hill. In 1992, Mr. Kerry attended the first United Nations climate change summit meeting, in Rio de Janeiro, where he kindled a connection with Teresa Heinz, who attended with a delegation representing the elder President George Bush.

Married three years later, the couple went on to write a 2007 book together, “This Moment on Earth: Today’s New Environmentalists and Their Vision for the Future.” By that time Mr. Kerry had run for president and lost, and then was one of the founders of a think tank, the American Security Project, that defined climate change as a national security threat.

After Mr. Obama was elected president in 2008, Mr. Kerry and his wife began holding salons in their Georgetown home focused on climate policy, with guests like John P. Holdren, the new president’s science adviser. By 2009, Mr. Kerry had joined Senator Lindsey Graham, Republican of South Carolina, and Senator Joseph I. Lieberman, independent of Connecticut, to push an ambitious climate change bill.

At the Copenhagen climate summit meeting in December 2009, Mr. Obama promised the world that the Senate would soon pass that bill — but a few months later, Mr. Kerry’s legislation fell apart. Since then prospects for global warming legislation on Capitol Hill have been poor.

Now, Mr. Kerry hopes to use his position as secretary of state to achieve a legacy on global warming that has long eluded him.

“There’s a lot of scar tissue from the U.S. saying it will do stuff” on climate change and not following through, said Mr. Schmidt of the Natural Resources Defense Council. But he said Mr. Kerry’s push abroad and Mr. Obama’s actions at home were changing expectations among other nations.

“They’re still waiting to see what we’re going to do,” Mr. Schmidt said, “but the skepticism is much thinner than it was a few months back.”

“Kerry Quietly Makes Priority of Climate Pact”, Coral Davenport, 02/01/2014, online at:  
[http://www.nytimes.com/2014/01/03/world/asia/kerry-shifts-state-department-focus-to-environment.html?\\_r=1&](http://www.nytimes.com/2014/01/03/world/asia/kerry-shifts-state-department-focus-to-environment.html?_r=1&)

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### ❖ **Another View: Worldwide shortages could lead to water wars**

Get ready for the water wars.

Most of the world's population takes water for granted, just like air. But a Hindustan Times blogger said that in India right now, as in so many other places around the globe, drinkable water has become such a "precious commodity" that it's dragging the world into "water wars to follow the ones for the control of fuel oil."

Climate change is drying up lakes and rivers almost everywhere. In Australia, for example, an unprecedented heat wave brought on massive wildfires and critical water shortages.

As water grows scarce, more countries are building dams on rivers to hog most of the water for themselves, depriving the nations downstream. Already, Egypt had threatened to bomb the Grand Renaissance Dam upstream on the Nile River in Ethiopia.

And as the Earth's population crossed the 7 billion mark last year, more and more water sources are so polluted that drinking the water can kill you. No one's counting, but various government and private estimates indicate that worldwide, tens of thousands of children die each and every day from drinking contaminated water.

By most estimates, half the world's people live in places where clean water is not easily available. Bangalore, India, for example once had 400 lakes in its vicinity. Now, the New Indian Express newspaper wrote, only 40 are left, and all of them are polluted.

Hence the fights. One of the biggest areas of conflict is the India-Pakistan-China nexus. Multiple rivers intertwine the countries, and as water levels fall, all three are building dams to keep much of the water for themselves.

China has built more dams than any other nation, making numerous countries angry because Chinese rivers flow into more adjacent states than from any other state. And yet, even with 14 different downstream border states, China refuses to agree to any water treaties. Right now, China has

approved plans to build 54 more dams on rivers, many of which serve as the lifeblood of neighboring states.

So where is all this water going? With ever-rising temperatures, more and more water evaporates and returns to the ground as rain. But most of it falls into the oceans. That's one reason sea levels are rising worldwide, threatening vast coastal areas.

“Another View: Worldwide shortages could lead to water wars”, 31/12/2013, online at:

<http://www.desmoinesregister.com/article/20140101/OPINION01/301010053/Another-View-Worldwide-shortages-could-lead-to-water-wars?Opinion&gcheck=1>

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