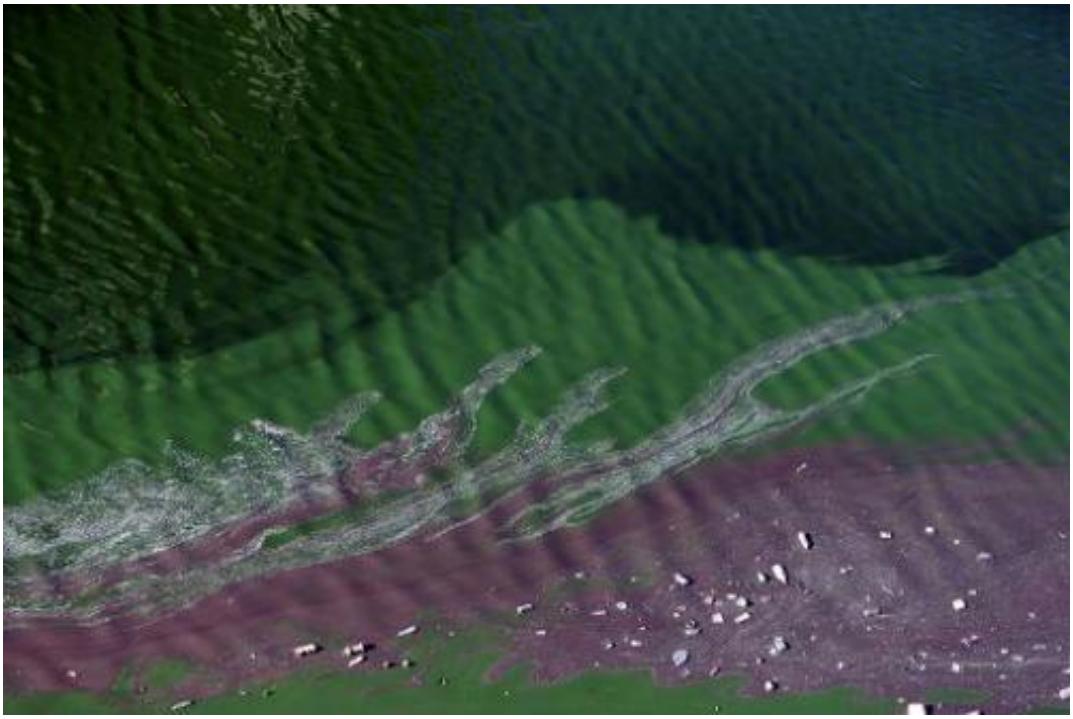
Lebanon faces water crisis after record winter drought

May 9 2014, by Karim Abou Merhi



Detritus float on the artificial Qaraoun lake in Lebanon's Bekaa valley, on April 14, 2014

Lebanon is bracing for a summer drought, after a record dry winter exacerbated by a massive influx of Syrian refugees and longstanding water management problems.

In Ammiq, in the east of the country, the effects of the dry winter are

already visible.

Farmer Khaled al-Kaabi has begun watering his fields a month earlier than usual because the rains that ordinarily feed his lands never came.

"Usually we do this at the end of May, but this year the lack of rain has forced us to do it now," he said as he irrigating rows of wheat for animal feed.

Lebanon's meteorological service says the country has had just 431 mm (17 inches) of precipitation since September, less than half last year's 905.8 mm and far below the yearly average of 812 mm.

The country hasn't seen such low levels since 1932, when just 335 mm was recorded, according to Hadi Jaafar, assistant professor of irrigation engineering and water management at the American University in Beirut.

But the increase in the country's population since then makes this year's drought far more serious, he said.

"This year, and although we received a little bit above 400 mm, it is far worse," he said.

"Back then, the population was less than half of today's, and so were the agricultural areas," he added.

"Relatively speaking, it is the driest year on record for the inhabitants in this country."

Ordinarily, Lebanese farmers irrigate their fields by digging channels that divert water from local rivers or wells that fill with rainwater.

But the rain and snow that usually feed the rivers and wells never arrived.

"This year, we will have to pump up water from below ground, but if this drought continues next year, there'll only be five percent of that groundwater left," Kaabi said.

Syrian refugees compound crisis

Lebanon has the highest proportion of arable land to residents in the Arab world, but just 12 percent of the land is cultivated, and agriculture contributes only 11.7 percent to GDP, behind services and industry.

Still, farmers can ill afford to leave their lands unwatered, despite warnings from Jaafar and others about tapping the country's groundwater reserves.

Water from the 'Al-Laban fountain' flows into the reservoir of a dam in

Lebanon's Shabrouh mountains, north of the capital Beirut, on April 14, 2014

"The water demand for Lebanon is projected at about 1.8 billion cubic meters per year," he said.

"Most of this water needs to come from groundwater pumping this year... Renewable groundwater resources will all be depleted and we will be tapping from our strategic reserves."

Lebanon's parliamentary committee for public works and energy called in April for the creation of a crisis group to deal with the expected summer shortages.

Fadi Comair, director general of hydraulic and electric resources at the energy ministry, described a "truly dramatic situation," exacerbated by waste and an influx of Syrian refugees.

He said Lebanon could ordinarily expect to have water resources of around 2.7 billion cubic metres in a given year.

Those resources would be sufficient to meet projected annual needs at least until 2020.

"But the influx of Syrian refugees means this balance will tip into the negative by the end of this year," he said.

The UN refugee agency UNHCR warned in February that the presence of more than a million Syrian refugees alongside four million Lebanese would seriously deplete the country's renewable water resources.

Comair says that scenario was only made worse by a winter so dry and

unseasonably warm that the country's ski resorts were able to open for just two days.

Mismanagement of resources

But even under the best of circumstances, Lebanon fails to manage the water resources it has, according to Comair.

The country has just two dams and some 70 percent of the water that flows through its 16 rivers ends up in the Mediterranean.

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Comair says 48 percent of the water that is collected is then lost because

of poor infrastructure and leakage.

Things are expected to get worse, but farmers are already complaining about crop losses, and in Beirut, residents with the means to do so have been forced to buy water from private suppliers to supplement the flow from the state.

The energy and water ministry has publicly called for citizens to reduce their usage, urging them to avoid washing cars and even to "minimise personal water usage, including showers."

In March, a group of activists and businessmen launched Blue Gold, an initiative to limit water loss and better manage Lebanon's resources.

Its proposals include better storage facilities and monitoring, wastewater treatment and more water efficient households and crops.

But corruption, bureaucracy and the country's perennial political paralysis make the prospects for such changes uncertain.

Comair describes a plan from 2000 to build 27 dams and artificial lakes that has languished unimplemented.

"We haven't been able to carry out more than one percent of those objectives because there is no political will," he said.