

# The Dead Sea—depletion of a shared natural resource

June 24 2016, by Lena Gregorian

---



Sinkhole, Dead Sea, Israel. Credit: Lena Gregorian

Travel to Jordan raised a lot of expectations, including that I would find a land somewhat familiar to my birthplace, Ashgabat, Turkmenistan—perhaps because of the Muslim majority of both places and the hot weather that shapes the climate of those countries.

In fact, the city of Amman, truly beautiful and welcoming, feels quite

far from my native city, and reminded me more of my current country and especially (a bigger version of) Jaffa, considered today a southern neighborhood of Tel Aviv-Jaffa.

Arriving at Amman right in the middle of the Jordanian independence day is a great experience in itself. Citizens were riding the central streets waving their flags, half their bodies extended out of the cars, blaring car horns and music, colorful street lights and later fireworks.

From this touristic experience that welcomed us, we dove into our field study of cross-boundary environmental problems and conflict resolution in the Middle East. Our experiences introduced us to some of the many issues of the region, one of which I'd like to share.

The Dead Sea depletion is something we have heard about for years. Because the sea level has been dropping by about one meter a year, academics, environmental NGO's and people from both sides of the border are concerned about the future of this great natural asset. We encountered phenomena like sinkholes, due to the fall of the water level, and the disappearance of valuable natural appearances like naturally white colored sea water. So it is true to note that the Dead Sea will soon enough become a dead "pool" of sea. But perhaps there's another alternative.



Old and new pipes at the Arab Potash Company, Jordan. Credit: Lena Gregorian

The Dead Sea is not the sea we used to know just a few decades ago. The sea is divided into two main parts: man-made pools that are used by the industry on the south, and the other "natural" northern part. There are two companies that physically extract minerals from the sea, one on each side, Israel Chemicals Limited and the Jordanian Arab Potash Company. In fact, other companies that are far from the sea (like in the United States and Canada) have shares with those two leading players and indirectly affect the Dead Sea from afar.

Israel Chemicals Limited and the Arab Potash Company both extract minerals to produce fertilizers for agriculture and chemicals for engineering. It is easier to extract the minerals from the Dead Sea than drilling deep into the land for them. The companies capture the water and extract the minerals through evaporation. Used water is sent back

into the sea through two big pipes.

The fertilizers from APC will find their way, among many different places, to China and India, helping to feed large and growing populations. APC sees that as its main goal and is proud to be a leading player in world's food supply for many hungry mouths. But around 40 percent of the Dead Sea depletion is because of these companies' activity.

So why is the Dead Sea is important, and why is it important to preserve it? There are many valid answers. A lot of people depend on this sea, from the remote population in India to the worker's families and the economies of Jordan and Israel. By comparison to other extraction projects (whether it's minerals, gold, oil, etc.), there are no native residents who seemingly suffer from the industry. Probably no one is living by and suffers from the factory's emissions, or has their water resources polluted, and nobody's land has been occupied.



The northern end of the Dead Sea, Jordan. Credit: Lena Gregorian

But I'd say that the Dead Sea is important for its own sake, and not for ours. In our profit-maximization economy, it is not likely that the extraction companies around the world will understand that, and perhaps change their intrusive approach toward their working fields.

Each company has a concession lasting different periods, the Israeli one to 2030 and the Jordanian one a few decades ahead. Both those companies believe that they're saving the world by doing their best job possible. We need to see that those companies leave us some Dead Sea when they're gone.

Provided by Columbia University

Citation: The Dead Sea—depletion of a shared natural resource (2016, June 24) retrieved 19 April 2024 from <https://phys.org/news/2016-06-dead-seadepletion-natural-resource.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.