

The Price of Salt: How Economic Greed and Corruption Swallowed the Dead Sea

Industrial Extraction, Privatization, and the Environmental Collapse of a Shared Natural Commons

Mazen Al-Ghoul (American University of Beirut)

Department of Chemistry

Critical Ecologies Lab in the Mediterranean East (CELME)

(Article originally published in Arabic: <https://180post.com/archives/66547>)

The Dead Sea, a hypersaline, landlocked lake situated at the lowest point on Earth, stands as a natural and historical wonder without parallel. With a salinity of 348 grams per litre, it is nearly ten times saltier than the world's oceans. Since the dawn of history, this extraordinary basin has attracted empires and served as a centre of wealth. The exploitation of its resources reaches back to antiquity, when early civilizations first recognized its value. The Nabataeans fiercely controlled the harvesting of natural asphalt, or viscous petroleum bitumen, which detached from the seabed and floated to the surface in large clumps. They monopolized its trade and sold it to the ancient Egyptians, who relied on it as an indispensable ingredient in the complex processes of mummification and the preservation of pharaonic bodies, as well as for waterproofing and other early industries.

Yet the exploitation the Dead Sea experienced in antiquity bears no comparison to what it endures today. This natural wonder has become the stage for one of the most brutal episodes of economic and environmental extraction in the modern era: a genuine tragedy driven by transnational capitalist conglomerates and enabled by governmental complicity and systematic regulatory neglect on both shores. It is a story in which private corporations reap hundreds of millions in profits, while nature and local communities are left to pay the catastrophic environmental bill.

Plundered Treasures of the Depths: What Is Extracted From the Heart of the Sea?

Before entering the labyrinth of privatization and politics, we must first unpack this economic prize and dispel a common public misconception. Many imagine that companies simply find ready-made, solid minerals floating in the water. The scientific and industrial reality is entirely different. The seawater contains no minerals in solid form; rather, it holds dissolved ions that make up complex, interlocking saline solutions and compounds. Their recovery depends primarily on chemical engineering and the controlled, gradual induction of crystallization through solar evaporation.

The factories target compounds and elements of immense strategic importance in global markets: potash (potassium chloride), bromine, magnesium chloride, industrial salts, and magnesium metal. Potash and bromine, in particular, form a backbone of the global fertilizer industry and of chemical production, including widely used flame retardants. To grasp the scale of this extractive empire, it is enough to note that Israel alone produces roughly 3.8 to 3.9 million metric tonnes of potash each year and controls around 35 percent of global bromine production, generating enormous revenues.

To harvest these elements, companies employ sweeping methods that begin by pumping vast quantities of Dead Sea water from the deeper northern basin into an intricate network of shallow artificial evaporation ponds. These ponds have consumed the entire southern basin and cover more than 150 square kilometres. Under the scorching desert sun, halite—sodium chloride, or ordinary table salt—precipitates first onto the pond floors because it has relatively little commercial value. The remaining liquid becomes an extremely concentrated solution known as “bitter brine.” From this brine, complex salts such as carnallite begin to crystallize and are mechanically harvested as a raw slurry.

Once harvested, the material enters an arduous sequence of chemical and physical operations. Potash is washed and processed for purification, while producing solid magnesium metal requires drying magnesium chloride and then subjecting it to high-temperature electrolysis to break its chemical bonds. Bromine, meanwhile, is extracted by reacting the remaining brines with chlorine gas and intensely hot steam, after which it is condensed into a toxic red liquid.

Valley of Secrets: A Journey Through the History of the Sacred Sea

To understand the depth of the present tragedy, we must travel far into the millennia-long history of this singular basin. The Dead Sea was never an isolated body of water; it was a living heart of history

in the Great Rift Valley. From the end of the last Ice Age and the earliest dawn of human settlement, the sea witnessed humanity's capacity for adaptation and endurance. Ancient communities learned to harness the surrounding springs and cultivate rare crops of exceptional economic value, including the mysterious aromatic balsam plant, sugar cane, indigo, and the famous palm groves that adorned the oases of Ein Gedi, Jericho, and Safi.

Its shores saw the rise and conflict of major civilizations that left their marks in both the historical and archaeological records: the Moabites and Nabataeans, the Greeks and Romans, and later the Byzantine and Islamic eras, followed by the Crusaders and Mamluks. In the secluded caves carved into its cliffs, the celebrated Dead Sea Scrolls were hidden, preserving religious and historical texts for centuries. The sixth-century mosaic known as the Madaba Map reveals the sea's economic and commercial importance at the time. It clearly depicts two boats crossing its heavy waters: one carrying a mound of brilliant white salt, the other bearing a reddish-yellow cargo—labelled “aksera”, thought to represent asphalt, bitumen, or grain destined for regional markets.

For thousands of years, the Dead Sea existed in a delicate ecological and dynamic balance with the human societies around it. People took the salts and resources they needed without threatening the sea's natural existence. The Jordan River and its tributaries once flowed generously into the lake, supplying approximately 1.2 billion cubic metres of fresh water each year and almost perfectly compensating, through a remarkable natural cycle, for the water lost to evaporation under the desert sun. This sustainable equilibrium endured until the disasters of the modern industrial age and an insatiable capitalist appetite choked the river's headwaters, reducing the annual inflow to a meagre 100–150 million cubic metres. Thus began the long death of the Dead Sea.

The Modern Industrial Roots of A Shared Monopoly

The modern, intensive industrial exploitation of the Dead Sea began in the early twentieth century under the British Mandate, driven by explicitly imperial ambitions to secure Britain's supply of strategic potash and break Germany's global monopoly at the time. On 1 January 1930, the foundations of large-scale solar evaporation were laid when the “Palestine Potash Concession” was granted to Palestine Potash Limited under a joint agreement between the governments of Palestine and Transjordan.

The partnership did not last. Following the geopolitical ruptures and the 1948 war, the shared monopoly split into two separate entities, each sponsored and protected by the state on its side of the border, opening a new chapter of systematic depletion. On the eastern shore, the Jordanian government consolidated institutional control over the resource by granting the Arab Potash Company (APC) an exclusive one-hundred-year monopoly in 1958 to produce and exploit the minerals of the Dead Sea. On the western shore, the Israeli government nationalized the southern production facilities in 1951 and established Dead Sea Works (DSW).

To tighten this control and formalize the appropriation, the Israeli Knesset passed the Dead Sea Concession Law in 1961, granting DSW exclusive mining rights over a vast area of 652 square kilometres. The scale is staggering: the concession amounts to roughly 3 percent of Israel's total land area and is more than eleven times larger than the municipality of Tel Aviv–Jaffa. An immense natural patrimony was thereby handed to a single industrial entity that would operate for decades behind the protection of state law and privilege.

The Age of Privatization: Economic Exploitation and the Plunder of Public Resources

By the late 1990s and early 2000s, neoliberal policies and economic liberalization had swept across the region, privatizing strategic national assets and transforming them into money-making machines for select political and economic elites. Here, economic exploitation assumed some of its ugliest forms: a shared natural heritage was commodified and sold cheaply to private interests and foreign multinational corporations.

In Jordan, privatization accelerated under structural-adjustment programmes imposed by the World Bank and the United States Agency for International Development (USAID). In 2003, the Jordanian government took a step that caused widespread shock: it sold half of its 56 percent stake in the Arab Potash Company to the Canadian mining giant Potash Corporation of Saskatchewan, later part of Nutrien, for only US\$173 million. The enormous and grossly underestimated value of the national asset became unmistakable in 2018, when the Canadian company sold the same 28 percent stake to China's State Development and Investment Corporation (SDIC) for US\$502 million.

The sale provoked widespread public anger. Many Jordanians regarded it as an illegitimate confiscation of the nation's natural wealth and a direct assault on what might be called the "moral economy" of national resources. That anger became a major catalyst for social and labour mobilization and reached its peak during the Arab Spring protests of 2011–2013. Demonstrators accused the state of selling public assets under corrupt conditions and chanted a refrain that condensed the tragedy into a few words: "They sold the phosphate—they stole it! They sold the potash—they stole it!"

These fears were not unfounded. Privatization coincided with explosive corruption scandals among the political elite. Alongside the controversy surrounding potash, the 2006 sale involving the Jordan Phosphate Mines Company (JPMC) exposed illicit enrichment and systematic corruption, culminating in the conviction of Walid Al-Kurdi for unlawful profiteering and abuse of office. The court fined him 284 million Jordanian dinars, approximately US\$269 million, and sentenced him to eighteen years of hard labour. He fled and lived as a fugitive in the United Kingdom. Such episodes belonged to a broader landscape of illicit wealth accumulation later illuminated by the Pandora Papers in 2021.

At the level of labour, economic exploitation appeared in its harshest form. The foreign management of the Arab Potash Company introduced severe cost-cutting measures that deeply affected local workers. More than one thousand employees were stripped of long-term contractual protection and forced into precarious daily or independent work arrangements. Management also faced documented accusations of wage discrimination, union-busting tactics, and the continuing harassment and intimidation of labour representatives. The disorder reached such a point that, in 2016, the company was compelled to acknowledge a concealed financial liability of 56.4 million Jordanian dinars withheld from employees' entitlements. Meanwhile, profits continued to soar: APC reported net earnings of 144.7 million Jordanian dinars in the first quarter of 2022 alone and 113.8 million dinars in the first quarter of 2023.

The Western Shore: Family Monopolies and State Complicity

On the Israeli side, economic exploitation developed into a highly elaborate institutional system through regulatory capture and the "revolving door," whereby senior government officials move directly into leadership positions within the very conglomerates they were legally charged with regulating. Privatization began in 1992, and by 1999 the state had relinquished its controlling share to Israel Corporation, a massive holding company controlled by the billionaire Ofer family. Dead Sea Works thus became a private monopoly operating beyond meaningful accountability.

The company used its enormous influence to secure extraordinary regulatory concessions and avoid taxation. In 2014, Israel Chemicals Ltd. (ICL) moved its European regional headquarters to the Netherlands and used shell companies to reduce its tax obligations. It also deployed its political leverage to suppress outside competition: in 2013, a takeover attempt by Canada's Potash Corporation was blocked, ensuring that this highly profitable monopoly remained under exclusive domestic control. A report issued in March 2025 by Israeli State Comptroller Matanyahu Englman exposed the scale of financial waste and governmental complicity.

The absurdity is perhaps clearest in the rent charged for the concession. Although the company controls 652 square kilometres, the Israel Land Authority for decades collected an annual fee of only 2.7 million shekels, about US\$745,000. Worse still, this derisory amount rested on land valuations dating back to 1975 and denominated in the long-defunct Israeli lira. Over the past six decades, more than 250 square kilometres of seabed have dried and been exposed, yet the company occupied this newly revealed land and built industrial facilities on it without paying any additional rent.

The waste did not end there; it extended to the non-payment of environmental and mining fees owed to the state. The company generates enormous quantities of industrial waste, including 15,000 tonnes of salt sludge and two million tonnes of short-life salt waste each year. Yet the Ministry of Environmental Protection failed to collect mandatory landfill fees estimated at 90–135 million shekels for 2023 alone. The Ministry of Energy and the Israel Land Authority likewise failed to collect concession payments for extensive quarrying operations, costing the public treasury more than 120 million additional shekels over the past decade.

Perhaps the greatest economic scandal is the appropriation of the Dead Sea's vital water itself. Together, the Israeli and Jordanian companies pump roughly 600 million cubic metres every year from the deeper northern basin into the southern evaporation ponds. For decades, Dead Sea Works pumped this water and dried the sea free of charge and without a formal licence. This blatant, uncompensated depletion continued until the environmental organization Adam Teva V'Din fought a

determined legal battle that culminated in a 2019 ruling requiring the Water Authority to subject the company to a licensing regime. An even more significant victory followed in December 2025, when the Supreme Court ordered the company to pay between 250 and 500 million shekels for the brackish groundwater it had pumped since 2017.

The brazenness of the arrangement is also visible inside the industrial evaporation ponds. In “Pond 5,” approximately 20 million tonnes of salt settle on the bottom every year, raising the water level by about twenty centimetres annually and threatening to flood nearby hotels and resorts. Rather than requiring the company to bear responsibility for the damage, the government agreed to cover 20 percent of the multibillion-shekel cost of the so-called Salt Harvesting Project, using public funds to dredge the accumulated salt.

An Environmental Disaster Documented in Numbers and Enabled By Regulatory Corruption

While fortunes accumulate in private bank accounts and shell companies, the Dead Sea pays for this rapacious economic exploitation with its very existence. Extracting globally sought minerals and ionic ores requires profoundly destructive methods. Millions of cubic metres of precious water are pumped annually into shallow evaporation ponds, yet only around half returns to the sea; the remainder is discarded as highly saline industrial liquid waste.

These industrial operations alone account for approximately 40 percent of the Dead Sea’s catastrophic annual depletion, constituting relentless hydrological and chemical extraction. The remaining 60 percent results from massive water diversions and dams on the headwaters of the Jordan and Yarmouk rivers by Israel, Jordan, and Syria. The outcome is a frightening annual fall in water level of 1.1–1.2 metres. Since 1976, the surface area of the Dead Sea has been reduced by almost half, while its level has dropped by more than forty metres.

Even more alarming is what recent investigations reveal about the efficiency with which this water is used. On the Israeli side alone, the State Comptroller’s 2025 report found that roughly one quarter of the water pumped by Dead Sea Works leaks through the floors of its largest industrial evaporation ponds and is entirely lost. This gross structural waste forces the company to pump vast additional quantities merely to compensate for leakage, while regulators have made no serious effort to require the sealing of the ponds or the rationalization of pumping.

The rapid and terrifying retreat of the shoreline has exposed more than 300 square kilometres of seabed over the past fifty years. As the saline water withdraws, fresh groundwater flows in to replace it, dissolving underground salt layers that had remained stable for millennia. This subterranean dissolution causes the ground above to collapse, producing between 7,000 and 8,000 sinkholes along the coast. These sudden cavities have swallowed buildings, major highways, and tourist resorts, inflicting severe losses and turning vast areas into dangerous ghost landscapes. Even the companies responsible for the disaster have not escaped its effects: sinkholes have appeared inside the Arab Potash Company’s evaporation ponds in Jordan, causing anticipated losses of US\$70–90 million.

The destruction is not limited to draining the water and swallowing the land. Official complicity and concealment have allowed pollution to invade what remains of the natural environment. Through governmental negligence and the complicity of Israel’s Ministry of Environmental Protection, the environmental permit conditions governing the company’s bromine and potash plants went without revision for periods of fifteen to twenty-five years. The chemical factories consequently operated without clear standards for wastewater disposal or risk management. In this regulatory vacuum, the company was not even legally required to report pollution incidents.

For years, huge quantities of potash leaked continuously from an eighteen-kilometre conveyor belt directly into the heart of the Judean Desert Nature Reserve, destroying local vegetation and completely salinizing the soil. Between October 2020 and January 2024 alone, eight separate chemical-pollution incidents were recorded from pipelines inside the reserve. One of the best-documented disasters occurred in 2022, when a major chemical leak from waterways and pipelines feeding the evaporation ponds sent hypersaline solutions across the alluvial fan of the historic Wadi al-Sayyal, called the Tze’elim Stream by the occupation, causing the widespread death of vegetation and living organisms and the effective annihilation of the local ecosystem.

Conclusion

The story of the Dead Sea today is a stark warning and a living testament to the extremes human greed can reach when it is joined to institutional corruption and the deliberate absence of political will. Once a secure source of embalming material for the pharaohs, it has become an open, exhausted mine devoured by monopolistic conglomerates and modern geopolitical rivalries. A natural wonder has been transformed into the silent victim of transnational interests.

As the current Israeli concessions approach their expiry on 31 March 2030, and legislation is debated to establish an international competitive tender, every party is seeking to maximize its gains and renegotiate its contracts to preserve its profits. Yet the fundamental question remains: can revenues from royalties, taxes, and settlements, however large, restore life to a sea that is slowly dying and whose shores fracture further each day? Or will future generations stand before the ruins of a barren desert and its deep sinkholes and ask how the world allowed the Dead Sea to die?

Bibliography

- Reznik, I. J., & Gavrieli, I. (2023). Massive-Scale Dissolution, Conveyance, and Disposal of Dead Sea Potash Industry Halite Waste. *Environmental Science & Technology*, 57(22), 8385-8395. <https://doi.org/10.1021/acs.est.3c01197>
- Epstein, J. A., Feist, E. M., Zmora, J., & Marcus, Y. (1981). Extraction of Lithium from the Dead Sea. *Hydrometallurgy*, 6(3-4), 269-275.
- Arielli, N. (2025). *The Dead Sea: A 10,000 Year History*. New Haven: Yale University Press.
- Peilstocker, M., & Wolfram, S. (Eds.). (2020). *Life at the Dead Sea: Proceedings of the International Conference Held at the State Museum of Archaeology Chemnitz*. Munster: Zaphon.
- Cambridge Core, *International Review of Social History*. Privatizing the Commons: Protest and the Moral Economy of National Resources in Jordan.
- State Comptroller of Israel. (2025, March). *Management and Supervision of the Dead Sea Concession: Environmental and Land-Use Aspects*. Special Report.
- Arab Potash Company. (2023). *Interim Condensed Consolidated Financial Statements (Unaudited)*, 31 March 2023.
- Arab Potash Company. *Annual Report: Operations Overview and Corporate Information*.
- ICL Group Ltd. *Salt Harvesting Sustainability Documentation and Environmental Performance Reports*.
- Columbia University, *State of the Planet*. Dead Pool: The Depletion of a Shared Natural Resource.
- Columbia University, *State of the Planet*. A Dwindling, Dying Dead Sea: A Call for Restorative Action.
- Who Profits Research Center. *The Israeli Occupation Industry: ICL Group Ltd*.
- Al Farawati, O. (2003). *Jordanian Privatization Extended to the Dead Sea*. CorpWatch.
- Surkes, S. (2025, March). *State Has Failed for Years to Properly Manage Dead Sea Works - Comptroller Report*. The Times of Israel.
- Surkes, S. *State Allows Dead Sea Works to Pump More Water, Even as Iconic Lake Recedes*. The Times of Israel.
- Surkes, S. *Sinking Israel-Jordan Relations Leave Dead Sea, a Natural Wonder, Low and Dry*. The Times of Israel.
- Globes. *Israel Chemicals Sued for \$291 Million in Government Royalties*.
- Globes. *Court Orders ICL to Pay NIS 250 Million for Dead Sea Water*.
- *Environment and Climate in the Middle East / Ynet*. *Government Negligence in Dead Sea Works Cost Israel Millions, Report Finds*.
- Encyclopedia.com. Arab Potash Company.