

Diver, bubbles and wall at Elphinstone Reef, Red Sea, Egypt (Derek Keats) Attribution 2.0 Generic (CC BY 2.0) https://www.flickr.com/photos/dkeats/6186078630/

Laurel Hunt (UCLA JD '23) attended COP27 as a member of the UCLA Emmett Institute delegation. This is her fifth UN Climate meeting. This year, she moderated two panels on coral reefs and risk mapping. She is the former Executive Director of Los Angeles' regional climate collaborative and an international city-to-city climate network.

As global climate leaders edged toward an agreement on "Loss and Damage" at COP27, BBC News Arabic reported something striking: An oil terminal was dumping toxic wastewater into the Red Sea jeopardizing "super corals" along with other coastal communities. Just as the UN Climate Talks reached its 11th hour, barely treated toxic wastewater, a byproduct of oil and gas drilling, was streaming into the local ecosystem. This all occurred near the same coastal Egyptian city of Sharm el-Sheikh where world leaders, including President Biden, sat down over the past two weeks to discuss the UN Climate agenda's fate.

The wastewater comes from Egypt's Ras Shukeir oil terminal and is referred to as "produced water" in leaked documents issued by the Gulf of Suez Petroleum Company, BBC Arabic reported. The documents also suggest that Egypt's

government has known about the wastewater problem since at least 2019, when British oil company BP sold its 50% stake in the plant to Dragon Oil, a United Arab Emirates firm. Ironically, this decision to dispose of company assets worth $10 billion was seen by many commentators as a plan to help BP meet climate targets. Egypt's state oil company owns the other half of the plant.

Five days before this news broke, I was in Sharm el-Sheikh as a member of the UCLA Emmett Institute's delegation to COP27. Climate activists, scientists and politicians descended on a venue that was bustling day and night. Many reunited with colleagues in between dynamic panel talks and negotiations. The energy on the ground felt electric as I moved between a session in the United States' Pavilion to coffee with an old colleague and ended up in a session featuring an incoming Brazilian President Luiz Inácio Lula da Silva and an enthusiastic crowd.

Even before the toxic dump headline, Egypt's coral reefs were already on the COP27 agenda.

I organized a panel in Israel's Pavilion to discuss reefs and climate solutions: "Adapting Our Coral Reefs to Climate Change: The Latest Science & Management." Countries, including the U.S., build and then organize their activities at COP around their "Pavilions." This is the country's physical presence at COP and pavilions often host a packed lineup of panel discussions, speeches, and receptions. This event grew out of a long-term collaboration with coastal cities sharing best practices for climate resilience including cities in Israel, Australia, South Africa, Chile, Spain and several others. (Prior to law school, I served as the Director of a city-to-city climate network focused on cities in these Mediterranean regions of the world.) This year's panel featured experts from the U.S. State Department, the University of Queensland, The Interuniversity Institute for Marine Sciences in Eilat, the Australian Remote Operations for Space and Earth consortium (AROSE), NASA, and Tel Aviv University. Notably, Coral Vita, a pioneer reef restoration startup company located in the Bahamas, and winners of the Earthshot Prize, also spoke at the event. After months of planning with all our partners, I moderated the panel along with Israel's Chief Scientist, Prof. Noga Kronfled-Schor.

We discussed challenges to coral reefs around the world and specific threats to the northern Red Sea, where Sharm el-Sheikh is located. The UN has warned that, if average global temperatures rise by 1.5 degrees Celsius as called out in the Paris Agreement, 90% of the world's coral will be wiped out. Temperatures in the Red Sea are currently rising faster than the global average rate. At the same time, the

region's "super coral" has so far proved to be resilient to the effects of climate change and we're starting to understand why. At COP27, a group of expert coral scientists from around the world released the report, "The Gulf of Aqaba's Reefs of Hope," declaring that coral reefs are beyond important globally, but, especially to the Red Sea region. In terms of climate change, this region's corals exhibit exceptional thermal tolerance in response to heat stress, surviving temperatures that are 5 to 6 degrees Celsius above the mean maximum summer temperature of the region. Notably, this means that the mass bleaching and mortality that has occurred to corals around the world has not yet reached the gulf's coasts. Prof. Maoz Fine, a speaker on our panel and one of the report's authors, explained that "If we were to protect the Gulf of Aqaba from local pressures (which are growing rapidly), we would essentially create the largest refuge against climate change for coral reefs."

The regions' reefs deserve a spotlight because they matter for fighting climate change globally. They are also an especially precious resource in Egypt, the country that generates the most coral-reef-associated tourism income of any nation in the world. Tourism contributes $1.2 billion (USD) to the Egyptian economy annual and supports 275,000 jobs. This is quite significant, especially in a country where almost one-third of the population lives below the poverty line. "Reef-building corals are the foundation of many coastal communities, providing people with food, protection from storms, life-saving medicines and livelihood from tourism," said Prof. Fine.

There are also a host of ecological management challenges and opportunities associated with a politically complicated region bordered by eight Middle Eastern countries: Egypt, Israel, Jordan, Saudi Arabia, Sudan, Eritrea, Yemen, and Djibouti. Fine's report even calls for the Red Sea reefs to become a designated UNESCO World Heritage Site, which would draw recognition and resources to the area. Later in the week at COP27, Prof. Fine joined Suez University coral reef expert Prof. Mahmoud Hanafy on a TV segment to discuss the reefs in the region and the impacts of climate change. The COP27 panel and TV segment highlighted the hard work being done on the ground by scientists and managers.



Laurel Hunt, Earthshot Prize-winner Sam Teicher (Coral Vita), and Dr. Newton Campbell, Jr. (AROSE) at COP 27. (Photo credit: Laurel Hunt)

Each year the UN Climate Talks put the colossal challenge of climate change on the global media stage. Much like the Olympics, it pours resources into the regional economy, while sometimes putting a critical spotlight on the host country, be it for human rights issues or environmental threats like those facing the Red Sea. Hopefully, we can use this shifting platform to draw attention to pressing regional climate issues like the spectacular Red Sea coral reefs. And maybe the reefs can teach us something about our diplomatic interactions. It wouldn’t be the first time. Just look at the post-Cold War official government collaboration between the US and Cuba on ocean science and reefs.

As a result of attending COP27 with the Emmett Institute’s delegation, I am now working with our partners to secure funding for a regional meeting to discuss reef science in the Red Sea.