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MAGAZINE

'A hot mess'

The Mediterranean is a crucial source of energy, income and pleasure. So why aren't we taking better care of it?

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Israel's Mediterranean: A 'Wild West,' but with waves of progress

The Med is considered one of the most contaminated seas on Earth. What are we going to do about it?



A TANKER docks near Israel's Ashkelon port, as men sit in a fishing boat.
(Amir Cohen/Reuters)

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• SHARON UDASIN

Israel's roughly 200-km. coastline provides the country with an essential outlet to the Mediterranean neighborhood and the world at large – a hub for commerce, communications, shipping, fishing and gas and oil exploration. While each of these industries fulfills critical national needs and enables Israel to secure its place as a local and global purveyor of energy, agriculture and innovation, the multitude of sectors dependent on the sea for survival are often at odds with each other, and experts fear that a sensitive marine environment may be the unseen victim of regulatory mismanagement.

"The ecosystem is not managed as an ecosystem," Tammy Ganot, an attorney for Adam Teva V'Din (Israel Union for Environmental Defense), told *The Jerusalem Post* in a recent interview. "We are in a hot mess basically."

"Up until now... the marine ecosystem wasn't addressed as such," explains Ganot. "Each and every use was regulated and managed, some better and some worse, as silos – each one individually, not from an integrative perspective or cumulative perspective, and lacking any vision."

As early as the late 1990s and early 2000s, nations around the globe began moving toward adopting ecosystem-based management policies for their oceans and seas, Ganot explains. In the United States, for example, President Barack Obama established the National Ocean Policy

by executive order in 2010, while the European Union has several relevant directives and policy instruments.

"In Israel, we are very far behind," she says. "It's a bit surprising because the sea is so crucial to Israel. We depend on it for energy – not just gas; it's also the coal plants on the coastline. We depend on it for food, in the fishing industry. We depend on it for security."

Perhaps most importantly, she argues, Israelis depend on the Mediterranean Sea for their drinking water, as about 75% of Israel's drinking water is the result of desalinating sea water.

In Israel's Mediterranean exclusive economic zone (EEZ), the lines are blurry as to whether environmental regulations apply. The result is a problematic and confusing situation that leaves the waters vulnerable to mismanagement.

While a Justice Ministry opinion says that fiscal and environmental legislation should apply to the EEZ, the country's Planning and Building Law dictates the opposite, Ganot explained. In addition, the National Infrastructure, Energy and Water Ministry is in charge of all activity that occurs within the EEZ, while the Environmental Protection Ministry serves only as a consulting body, generating a potential conflict of interest, according to Ganot.

Although currently frozen, a 2013 government bill called the Marine Areas Law proposed establishing a legal framework for activities conducted in Israel's Mediterranean, including in its EEZ. Among other things, the bill aimed to officially define Israel's territorial waters as well as its EEZ, which in principle extends to 200 nautical miles from Israel's coast. The legislation was also intended to define the powers of enforcement of various relevant authorities as well as apply Israel's environmental protection laws to maritime areas.

Yet even in the country's territorial waters – those closer to the coast, where environmental legislation already applies today – the uses of the sea are mixed and insufficiently controlled, Ganot argues.

"Each ministry has its own regulations concerning the Mediterranean – or doesn't," adds Dr. Boaz Mayzel, marine biologist for Adam Teva V'Din.

Biodiversity is dwindling as new pipelines, communication wires and breakwaters make their mark on underwater habitats, and as infrastructure and harbors undergo continual expansion, he explained. Although acknowledging that pollution monitoring occurs through the Israel Oceanographic and Limnological Research Institute, an arm of the Energy Ministry, Mayzel stresses that current operations are insufficient.

"We are going to have less beach per person as we go along," he says. "These things take their toll."

Ganot and Mayzel are therefore proposing the establishment of a

consolidated marine authority, a professional body that has the power to take an integrative look at Israel's marine plans. Such an authority, Ganot explained, would act independently but would include participants from each relevant government ministry.

Enabling all parties to speak with each other under one unified vision, the authority would abide by certain essential principles, she says. These principles would include the ideas that Israel's marine environment belongs to all citizens of Israel, the value of considering cumulative impacts of marine activity and the necessity of managing an ecosystem as a whole.

"But most important is really creating the mechanism that is set to adopt a vision," Ganot says.

The Adam Teva V'Din team is in the process of promoting its idea in the form of a bill, assembled with the guidance of the Environmental Law Institute in Washington, DC. With hopes of advancing the bill in the next Knesset session, the organization has recruited Finance Committee chairman Moshe Gafni (United Torah Judaism) and Social-Environment Lobby chairman Dov Henin (Joint List) to jointly sponsor the legislation.

The bill calls for the establishment of the authority, tasking the body with setting standards for the marine environment, considering potential hazards, launching impact assessments and reviewing alternatives that could be less damaging than proposed projects, Ganot explained. The four main areas of the authority's responsibility would be policy and planning, licensing and management, information and science, and enforcement and implementation.

As infrastructural projects continue to grow in order to meet national electricity, water and consumption needs, both Mayzel and Ganot argue that stakeholders must understand the permanence of the accompanying marine infrastructure.

"What an authority would do is make sure that decisions are made after consideration of long-term environmental effects and due process," Ganot says. "These are the safeguards that we need; we don't have the privilege of going on without them."

MAYA JACOBS, CEO of the Zalul Environmental Association, which focuses on protecting Israel's seas and rivers, says her organization has long supported the idea of creating an independent marine authority.

"We think that there should be some governmental body able to oversee and know all the many uses of all the various offices and local municipalities – somebody who's overlooking everybody, knows exactly what's done and understands the delicacy of the marine environment, which is very different from onshore activities."

Throughout the years, Jacobs explains, there have been

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MEN RELEASE fish from their net on a Tel Aviv-Jaffa beach. (Amir Cohen/Reuters)

numerous examples of approved activities that have clashed with environmental needs. Although the project never went forward, the government authorized drilling at the Gabriella basin, which would have taken place in a proposed marine nature reserve, according to Jacobs. In the fishing sector, meanwhile, prohibitions on catching certain animals have repeatedly been violated, she added.

"This kind of chaos demonstrates the attitude of the government toward the Mediterranean Sea, as a resource," Jacobs says.

ALTHOUGH AGREEING that the status quo is not sustainable for Israel's marine environment, Alon Rothschild, biodiversity policy coordinator at the Society for the Protection of Nature in Israel, expresses support for a different plan of action.

"Currently, it's a Wild West – it's not regulated," Rothschild says. Yet rather than creating a new, independent body to unify the responsibilities of planning, management and enforcement, Rothschild advocates empowering existing programs and authorities that are highly capable of performing their duties, if given the tools to do so.

"The right thing to do is to strengthen the current organizations," Rothschild says, pointing specifically to the Environmental Protection Ministry and the Israel Nature and Parks Authority. "You have several platforms you can use and you can try to have them do their jobs better."

Both of these government bodies, he argues, have the capability to properly administer the country's marine ecosystems, but are not currently given the power necessary to do so. Also critical is passing the government's 2013 Maritime Areas Law, which would define Israel's EEZ and set the rules

applying to these more distant waters.

"We suggest strengthening the government platforms, in terms of the government EEZ bill and the current enforcement platforms," Rothschild says.

In Rothschild's opinion, one of the best ways to curb illegal activity along the country's Mediterranean coast would be to establish a unit dedicated to marine enforcement within the INPA. Meanwhile, the Finance Ministry's Committee for the Preservation of Coasts (the ValHof), which includes strong representation from the Environmental Protection Ministry and green NGOs, could easily be given the mandate to plan the country's EEZ, according to Rothschild.

Urging government bodies to "take ownership" of particular responsibilities in the marine environment eventually proved successful in SPNI's four-year campaign to promote reform in the fisheries sector, Rothschild explains.

Combating overfishing, and particularly the activity of large trawling boats, was the focus of a campaign led by the Society for the Protection of Nature in Israel for the past several years. About 70% of the catches of these boats were young fish that had not yet had time to reproduce, according to the SPNI. Meanwhile, trawling generally poses a threat to other methods of fishing, specifically to smaller boats that operate in shallow water.

AFTER YEARS of pressure from the SPNI and other environmentalists, the Agriculture Ministry recently finalized regulations aimed at minimizing trawling activity and protecting marine biodiversity, which ultimately received the approval of the Knesset Economic Affairs Committee in September.

Under these new regulations, trawlers can fish only at a minimum

depth of 30 to 40 meters – replacing the current 15-meter minimum – to prevent damage to limestone ridges, which are critical habitats for fish and therefore the entire marine food chain, according to the ministry. In addition to banning trawlers from shallow waters, the regulations also prevent the vessels from operating at all off the country's northern coast, Rothschild explains.

The regulations also redefine the required size of holes in trawling nets, to ensure that only fish of a desired size are captured and enable the smaller animals to be released back into the sea. Boats that employ purse seine – a large wall of netting used to capture an entire school of fish – will no longer be able to fish at a distance of less than 500 meters from the coast, Rothschild adds.

To ensure that sufficient breeding can occur, the regulations also will gradually prohibit fishing during specific seasons. From March 1 through July 1, fishing will be entirely forbidden, while trawlers will be prohibited from operating from May 1 through August 31. While these moratoriums will take three years to become fully active, the first period will be 45 days and the second will be 60 days until that time, Rothschild explains.

To ensure that those most impacted are properly compensated for their losses, the government has budgeted NIS 16 million to repay trawler operators from northern Israel, where trawling is being forbidden entirely, the Agriculture Ministry said.

While Rothschild expresses satisfaction that the regulations finally received Knesset approval, he stresses the importance of ensuring their implementation and overcoming future challenges plaguing the sector. "We are happy; it's a huge achievement, but now we are looking at three big steps that need to take place. The first is of course enforcement. The Agriculture Ministry today does not have the capacity to enforce these regulations."

Instead, he reiterated, such activity should occur by means of a marine enforcement unit to be established within the INPA.

Another critical goal is raising the funds necessary to guarantee that all trawler operators who lost their businesses are properly compensated, Rothschild continues. A third step that must be taken is a decision to ban the fishing of certain species entirely.

"With the reform up until now, we are kind of graduating kindergarten and have joined elementary school," he says. "It's time to graduate to high school. For that we need to address a group of fish species that are highly endangered yet not protected."

Israel must ban the fishing of three species of groupers as well as the bluefin tuna, Rothschild explains.

Although protecting specific species and providing sufficient financial compensation will be important courses of action, Rothschild emphasized that

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'THE RIGHT thing to do is to strengthen the current organizations.' – Alon Rothschild, biodiversity policy coordinator at the SPNI. (SPNI)



MAYA JACOBS, CEO of the Zalul Environmental Association, supports the idea of creating an independent marine authority. (Micha Dor)



'THE ECOSYSTEM is not managed as an ecosystem.' – Tammy Ganot, an attorney for Adam Teva V'Din. (Adam Teva V'Din)

the country's first priority must be to ensure that the relevant authorities properly enforce regulations. Otherwise the regulations are simply "a piece of paper."

Also important to the Mediterranean's future, he continued, is the adoption of a variety of other measures, such as the creation of more marine nature reserves. While 25% of Israel's terrestrial lands are nature reserves, the same can be said for only 0.25% of Israel's Mediterranean waters, Rothschild explains.

"We also need many more marine reserves – then we'll have a system that can really enable the Mediterranean to flourish," he says.

As Israel moves forward with implementing its existing marine regulations, like the fishing reform, as well as organizing future policies, Rothschild stressed the importance of safeguarding the ecosystem, even in the face of global environmental challenges.

"Two of the most influential human drivers on the Mediterranean environment negatively are climate change and invasive species and we can't really reverse these things," Rothschild says. "The thing we can do is try to deal with what we can – the fishing regime, the mainstreaming of ecological considerations into infrastructure and the establishment of marine reserves."

Jacobs stresses the importance of conveying to the public the economic benefits of protecting the sea, particularly in light of the large investments entrepreneurs make to conduct maritime projects. The majority of the country's goods come in by sea, and yet, that same sea risks contamination from potential gas and oil spills, she continued.

"Our modus operandi is of course protecting the sea, but in order to

communicate these needs to the general public, we try to translate as much as possible to financial aspects," Jacobs says. "Israel is like an island and the sea is our main door to the world."

Like both Ganot and Rothschild, Jacobs advocated the advancement of the Maritime Areas Law, in hopes of seeing environmental legislation officially applied to the country's EEZ. She, too, expressed doubts that supervision of such regulations should be within the hands of the Energy Ministry, as occurs today, due to potential conflicts of interest.

Although Jacobs was critical of the chaotic regulatory scheme that still plagues Israel's Mediterranean coast, she acknowledged that the country has made positive steps toward improving the situation.

"There is a good word to be said about the way Israel has been treating municipal and industrial sewage being spilled into the rivers and into the sea," she says. "A lot of it is thanks to environmental organizations, but at the end of the day, Israel has strict demands about what is allowed and what is prohibited to be spilled. It has come a long way."

After a long battle led by Zalul against the Shafdan, Israel's largest sewage treatment facility, regarding the site's wastewater dumping, the fight is nearly over, Jacobs explains. The Shafdan, located in Rishon LeZion, has almost completed construction of anaerobic digesters to turn nearly all of the sludge there into compost, she says.

"This is a big environmental success that we are proud of," Jacobs adds. That being said, she stressed her concerns that Israel's cities are still reluctant to invest in proper drainage systems, which leads to problematic sewage spills into the sea during winter rains.

"The Mediterranean is relatively

small if you compare it to the rest of the seas and oceans in the world, and it's considered one of the most contaminated seas on Earth," Jacobs says. "That's why already in the 1970s the Barcelona Convention was issued in order to limit the amount of harmful materials that are allowed to be spilled into the sea."

Due to the Mediterranean Sea's slow shift of water, just one drop takes about 80 to 100 years before it is replaced, meaning that any spillage remains in the basin for a long time, Jacobs explains.

"Our vision is that one day sea pollution will be regarded as smoking in public places today – that people will be shocked that it was once allowed," she says.

CREDITING ISRAEL'S green groups with much of the progress made in protecting the Mediterranean coast, Prof. Rachel Alterman, an urban planning and law professor at Haifa's Technion – Israel Institute of Technology, looked toward the future with optimism.

"Over time, the curve of improvement in Israel is fantastic. It's very good," she says. "The improvement is very much there and much of it is due to the NGOs."

Alterman was the initiator and coordinator of the recently concluded Mare Nostrum project, a three-year, cross-border study that received a €4.3 million grant from the European Union in April 2013 to develop mechanisms for protecting the Mediterranean coastline.

Partners from Israel, Malta, Greece, Jordan and Spain worked to bridge the legal and institutional gap in the implementation of the Integrated Coastal Zone Management (ICZM) protocol, adopted by most Mediterranean countries in 2008. In a final report published this year, the Mare

Nostrum collaborators provided a series of recommendations and associated regulatory tools to help minimize the gap, drawn from their comparative analyses of varying laws and practices in the individual countries.

Like Rothschild, Alterman favors strengthening existing government bodies rather than establishing an independent authority to handle all marine and coastal responsibilities.

"Better coordination of the mechanisms is important," she says. "New ones don't necessarily abolish the tendency of division."

More realistic than launching an independent authority would be the creation of an "inter-organizational forum" to "liaise" or "knit bonds" among the relevant government bodies, instead of replacing them, Alterman explains.

Already in Israel, the Finance Ministry's Planning Administration is currently in the process of assembling a marine spatial strategy that would aim to integrate Israel's coastal and marine plans, Alterman says.

Although still in its formative stages, the prospective National Information Center for Marine Space would be led by the Planning Administration in collaboration with the Environmental Protection and Energy ministries. A primary goal of the center would be to integrate the management of marine space, and make the data accessible and transparent to all relevant parties.

Acknowledging that Israel has much room for improvement in marine and coastal management, Alterman reiterates that the country's progress must be evaluated at scale – side-by-side with that of other Mediterranean nations.

"In comparison, Israel looks much better," she says. "I'm optimistic not just because we are good comparatively, but because of our self-learning curve." ■