

CASE STUDY - GOKOVA BAY, TURKEY

Reviving the Most Overfished Sea on our Planet

How community patrolling and local collaboration is reviving a Turkish coastline—boosting fisher incomes by 400%

Between the Bodrum and Datça peninsulas in southwest Turkiye, where the Northeast Levantine Sea meets the Central Aegean, lies a stretch of crystal-blue water that has long nurtured diverse marine life. Beneath the surface swim endangered Mediterranean monk seals, dusky grouper, and angel sharks. Loggerhead turtles, bluefin tuna, giant devil rays, and even sperm whales all rely on this unique habitat, which is home to nearly 73% of Turkiye's fish species.

This is Gökova Bay, a 100 km narrow expanse of water where land and sea converge along the Gökova Plain. Its name reflects this connection—*gök* meaning "blue" and *ova* meaning "plain"—a bond that has shaped the lives of its people for generations. The bay has long been a hub for small-scale fishing, with local fishers relying on its rich biodiversity for their livelihoods.



Gökova Bay, where crystal-clear waters meet the rugged coastline.

But like many Mediterranean marine environments, Gökova has been pushed to the brink by too much fishing (legal and illegal) including destructive bottom trawling, decades of intense tourism, invasive species, and rising sea temperatures. The once-thriving waters that had

sustained communities for generations had reached their limit. And it is here that the story of today's Gökova Bay begins.

Once a depleted sea and the site of a fishery collapse, Gökova Bay now stands as a testament to the ocean's resilience. Its revival is an ongoing story—written daily on the boats patrolling its 100 km stretch—of community-led marine protection and a vision to secure the future of fishing.

Remarkable Results: High Quality, Effective Marine Protection

By 2009, Gökova's fisheries collapsed, and with them, the livelihoods of those who depended on the sea. White grouper and a single shrimp species—once accounting for 60% of local fishers' income—vanished, sending shockwaves through the community.

In response, a collaborative effort between local fishers, scientists, governmental bodies, and environmental organizations led to a historic shift. Key to this effort was Zafer Kızılkaya. Marine researcher, engineer, underwater photographer, winner of the Goldman Environmental Prize, and President of the Mediterranean Conservation Society, Kızılkaya has dedicated his life to protecting Turkiye's waters. From working with local communities to illustrate just how marine protected areas (MPAs) could improve their livelihoods to convincing government bodies and policymakers of the necessity and urgency for more MPAs, Kızılkaya's work in Gökova Bay has become a model now being scaled to other parts of Turkiye.



Zafer Kızılkaya, marine researcher and President of the Mediterranean Conservation Society, out on the waters of Gökova Bay - Photo courtesy of Revive Our Ocean

In 2010, Turkiye established its first marine protected areas (MPAs) for biodiversity conservation and fish stock replenishment in Gökova Bay. In an unprecedented move, six no-take MPAs were created, and nearly half the bay was closed to bottom trawling.

The results were remarkable. In just three years, fish biomass within the protected areas increased substantially, leading to a 400% rise in income for local fishers by 2013.

Over a span of five years, invasive species declined and key marine life returned—including predatory sandbar sharks and the endangered Mediterranean monk seal, both of which use the bay as a breeding and feeding site. With over 40% of shark and ray species in the Mediterranean threatened with extinction, Gökova Bay's ability to sustain its own sandbar shark population marked an incredible recovery for an ecosystem once on the brink.

The transformation of Gökova Bay was undeniable, but ensuring its future required more than just policies and regulations—it needed people willing to defend and sustain these waters every day.

Born On the Sea: Turkiye's First Woman Marine Ranger

"I was one of those children who were literally born on the sea," says Ayşenur Ölmez, Akbük Gökova Bay fisher and <u>Turkiye's first woman marine ranger</u>.

"We were raised on a boat...I learned how to fish from my parents. I was helping them as we ran a small scale family business."



Ayşenur, her mother, and brother on their fishing boat in Gökova Bay - Photo courtesy of Revive Our Ocean

For Ölmez, fishing was her family's sole income, and throughout her childhood, she expected it to be her future as well. But now, at 28, she can no longer rely on fishing alone to make a living.

As a young fisher, she watched the first MPAs take shape in Gökova Bay. Like many in her community, she was initially skeptical of the no-fishing zones. But over time, she not only understood their necessity—she began wondering what role she could play in safeguarding her own backyard.

"I call the sea home. I call Gökova home. And to protect my home, I had to do something," she says. "We all want to protect where we live, right? When I asked myself, 'How can I protect my home?' the answer was clear—I had to become a marine ranger."

In 2013, the <u>Mediterranean Conservation Society</u> launched the <u>Marine Ranger System</u> in Gökova Bay to patrol and protect Turkiye's no-fishing zones. The successes of Gökova's marine protection could not have been possible without this community-driven initiative transforming policy into action.



Marine Ranger in Turkish waters - Photo courtesy of Matt Jarvis

The Marine Ranger System puts local shore fishers at the heart of marine protection, recognizing them as key stakeholders in conserving biodiversity, enforcing No-Fishing Zones, and promoting sustainable fishing. By equipping these fishers to safeguard their own waters, the system not only helps protect their livelihoods but also ensures they play an active role in managing marine resources.

"What marine rangers do, and the goal of Mediterranean Conservation Society's Marine Ranger System, is to prevent poachers from entering the no-fishing zones. And that's what I'm mainly

doing at my home-preventing poachers and protecting these zones," Ölmez shares. "The best thing about being a ranger is protecting my home."

Protecting Today to Fish Again in the Future

In 2017, the Gökova Marine Protected Area was recognized as one of the world's 16 best marine protected areas, a distinction announced at the UN Ocean Conference in New York.

It has become a model for marine conservation in Turkiye, igniting a movement to protect more of the Mediterranean's fragile waters. In 2020, the country expanded its MPA network by an additional 350 square kilometers, and now, plans are underway to create a corridor of protected areas, following the blueprint of Gökova's success.



Photo courtesy of Akdeniz Koruma Derneği

Each day, Ölmez boards the Zodiac and sets out onto the blue waters that have shaped her life in ways beyond fishing or patrolling.

"[The sea] scares me a lot," she admits. "But it also makes me feel great in a way. It was the very thing that showed me that I could love something this much. That's why, to me, it is the definition of love. Because it is vast. Endless. It starts somewhere but you don't know where it ends."

At the heart of it all is this love—for the sea, for the life of a fisher, for the possibility of a future

where both can thrive.

"We are just a handful of people trying to make a difference," Ölmez says. "I became a marine ranger so that I could fish again in the future. Because I love being a fisherwoman. That's why what I want for the future is to be able to make a living just from fishing and nothing else. I am extremely hopeful, but we'll see what the future holds."