The Ocean's Story – Why Reefs Matter to Us All

A Hidden Wonder:

Slip beneath the waves and you enter one of the planet's richest ecosystems. Coral reefs, though covering less than 1% of the ocean floor, support almost a quarter of all marine life. Bright shoals of snapper, clownfish darting among anemones, parrotfish scraping algae from coral heads – all rely on this intricate living structure.

To people, reefs are more than scenery. They provide food for hundreds of millions, livelihoods for coastal communities, and protection against storms and erosion. They also bring joy to divers, snorkellers, and anyone lucky enough to see them alive with colour.

And yet, these wonders are vanishing.

The Decline:

Across the globe, reefs are in trouble. Scientists estimate that half of all reefs have already been lost or severely degraded. Rising sea temperatures trigger coral bleaching – a stress response in which corals expel the symbiotic algae that give them colour and energy. Without those algae, corals turn ghostly white and, if heat persists, die.

The numbers are stark. In 2016 alone, a heatwave killed nearly a third of the corals on Australia's Great Barrier Reef. Closer to home, East Africa's reefs have also suffered bleaching events, most recently in 1998, 2016 and 2020.

But bleaching is only part of the story. Overfishing strips reefs of herbivorous fish that control algae growth. Destructive practices – from dynamite fishing in parts of Southeast Asia to bottom trawling elsewhere – physically shatter reef structures. Pollution from agriculture and sewage smothers corals, while coastal development erodes natural buffers.

In Kenya, the signs became impossible to ignore. Fishers who once returned with baskets full of rabbitfish and snapper found themselves hauling in only a few small, juvenile fish. Families who had depended on the sea for generations faced empty nets.

The Turning Point:

In 2005, the small community of Kuruwitu, 30 kilometres north of Mombasa, took a bold step. Faced with dwindling catches and a declining reef, fishers and elders agreed to set aside a 30-hectare stretch of lagoon. No fishing. No extraction. Just space for nature to heal.

It was Kenya's first community-managed marine closure. At the time, many were sceptical. Could such a small area make a difference? Would families accept the short-term sacrifice of closing off part of their fishing grounds?

The results answered those questions emphatically. Within just a few years, fish biomass inside the closure increased by over 400%. Larger fish returned, breeding grounds revived, and corals once broken and bleached began to recover. Species absent for decades – sea cucumbers, octopus, even rare groupers – were sighted again.

Importantly, fishers outside the closure also benefitted. The so-called spillover effect meant that as fish populations recovered inside the protected area, they spread outwards, boosting catches nearby. What began as an act of desperation turned into a story of hope.

A Global Model:

Kuruwitu's success has inspired a movement. Today, more than 26 (check number) other community-managed areas along Kenya's coast have adopted similar approaches. The model has also drawn international attention, with visitors from across Africa and beyond learning how a small village took charge of its ocean future.

Globally, the idea of locally managed marine areas (LMMAs) is gaining traction. In Fiji, the Philippines, and Madagascar, communities are using similar methods – closing areas, restoring coral, and reaping the rewards. Science backs them up: studies show that well-managed closures not only increase biodiversity but also support stronger, more sustainable fisheries.

The economics are clear too. According to the United Nations Environment Programme, reefs contribute at least US$2.7 trillion each year to the global economy through fisheries, tourism, and coastal protection. Losing them would cost far more than protecting them.

Why This Matters to Everyone:

You don't need to live by the sea to depend on reefs. Globally, more than a billion people rely on reef-related fisheries for protein. Reefs act as natural seawalls, absorbing up to 97% of wave energy and protecting 150,000 kilometres of coastline from storms and erosion. In a warming world, where cyclones are intensifying, this protection is priceless.

Reefs also play a role in medicine. Compounds derived from reef organisms are being studied for treatments ranging from cancer to viral infections. Destroying reefs means losing potential cures before we even discover them.

And reefs are carbon sinks, storing blue carbon in the skeletons of corals and the seagrass beds that often accompany them. In the fight against climate change, their role is becoming increasingly recognised.

The Human Story: Statistics tell one story; people tell another. In Kuruwitu, fishers recall how their children once dreaded going to sea with them because the work seemed pointless. Now, those same children take pride in patrolling the closure and guiding visitors. Women who sell fish in local markets speak of having a steadier supply and better quality catches.

And schoolchildren – many of whom live only metres from the water – now snorkel above reefs alive with parrotfish and damselfish, learning in a single glance what textbooks struggle to convey. The reef has become a classroom, a laboratory, and a source of pride.

Our Role:

Protecting reefs is not someone else's job. Each of us has a role. Tourists can choose operators who support local conservation. Consumers can look for sustainably caught fish. Policymakers can scale up community models and fund restoration. And organisations like Oceans Alive and Canon can amplify local voices and show the world what's possible.

The story of Kenya's reefs is not unique, but it is urgent. If half of all reefs are already lost, the next half will vanish within decades unless action is taken. Yet Kuruwitu shows that recovery is possible – that communities, when empowered, can turn despair into renewal.