





A divor explores the ocean bed off the resort islands of Soneva

iving in the Maldives is a sublime experience. The warm-as-a-bath, crystal clear, gelato-hued waters are balm to the soul and marine encounters with turtles, dolphins, rays and myriad shimmering fish are all guaranteed.

However, this glorious

glimpse at life under the water is much more than a memorable experience. The very future of the Maldives is reliant on the protection of its precious marine environment.

As flagged at the recent United Nations Climate Change Conference in Scotland, one of the most pressing emergencies in the Maldives is the devastating loss of atoll coral.

The Maldives is essentially a chain of more than 1,000 small coral islands and sandbanks grouped into clusters known as atolls. The reefs are crucial to the island's survival. Coral reefs are one of the most biodiverse ecosystems on the planet and provide habitat for around a quarter of all marine life. It's

estimated that half a billion people rely on reef systems for their livelihood.

Rising sea temperatures are killing the coral reefs which in turn is having a devastating impact on life both on land and in the ocean. More than half of the world's corals have died over the last 30 years and scientists predict 90% of the world's reefs will disappear over the next 20 years if action is not taken.

Reefs are an essential part of the marine ecosystem and they also provide protection for the coastline.

During the Glasgow conference, the Maldives minister of state for Environment, a coastal marine scientist himself, admitted that the country is worried.

"There are 186 inhabited islands and each and every one, almost 90% of them now, complain that the islands have been eroding away," he said. "So we're spending more than necessary on coastal protection. We have to find alternative sources of funding for coastal protection and also to find solutions for the current rate of erosion."

If the situation is not turned around, the government says it could be forced to evacuate whole islands.

As well as climate change and rising sea temperatures, overfishing and pollution are also piling pressure onto the marine environment.

But according to Philippa Roe, head marine biologist and research coordinator at Maldives Underwater Initiative by Six Senses Laamu, the biggest and most immediate threat to the corals is unsustainable development.

"Land reclamation projects, causeways and dredging are having an immediate impact



on marine ecosystems," she said. "The country's reefs, seagrass and mangroves are losing their capacity to support the people who depend on them."

Six Senses Laamu is the only luxury resort in the Laamu atoll deep in the Indian Ocean in the far south of the country. More than a decade of conservation work and research means it has now been designated as one of the world's 'Hope Spots' by nonprofit organisation Mission Blue. Hope Spot designation aims to highlight ecosystems critical to the health of the ocean with significant ecological, economic and cultural importance. Protect a Hope Spot and there's potential to reverse damage from negative human impacts.

"Looking from 2011, when Six Senses Laamu began collecting information, to now as we're celebrating the designation of the atoll as a Hope Spot, it's truly a reason for hope," said Dr Sylvia Earle, founder of Mission Blue. It's so important we protect the ecosystems there, especially the seagrass meadows that we now understand are vital for generating oxygen, capturing carbon and providing a home and security for so many creatures not only within the atoll, but throughout the depths beyond."

Laamu atoll contains significant seagrass meadows, mangroves and rich reef systems. The seagrass meadows are vital for generating oxygen, capturing carbon as well as providing a home for many sea creatures. Laamu's mangroves also store carbon and are fundamental to local traditions, such as making coir rope out of coconut husks, a craft passed down through generations of Maldivian women and which relies on healthy mangrove systems where husks can be soaked. It's a tradition that was embraced by Six Senses Laamu when the resort was first constructed.

"The cadjan (thatch) roofs were made on nearby islands



from coconut palm leaves stitched together with coir rope made by local women," said Roe. "The resort also has its own carpentry workshop and tailor on-land - this allows us to source sustainable raw materials and produce furniture, fixtures and fittings in-house."

Another resort embracing the challenges facing the Maldives is hospitality group Soneva. Soneva's two luxury resorts, Soneva Fushi and Soneva Jani, are located in Baa atoll, a UNESCO Biosphere Reserve. Soneva has recently launched a programme to restore coral reef systems and create a coral reef hub for the Maldives. The project is a partnership between the Soneva Foundation, Swiss environmental organisation Coralive and Ark2030, a global ecosystem restoration organisation.

The restoration programme

is located on the outer edge of Soneva Fushi's house reef and hopes to both regenerate the local marine system and eventually become a hub of knowledge for both the Maldives and beyond. Once operational, the coral nursery will cover a hectare of ocean and propagate 50,000 coral fragments every year. Out-planted corals will eventually cover 40 hectares. The ultimate goal is to regenerate the reef back to the state in which it existed 25 years ago.

The nursery will harness Mineral Accretion Technology where low voltage electricity is channelled through submerged metal structures. As the electrons flow, calcium carbonate deposits begin to accumulate on the structures. This forms the skeleton of most hard and some soft coral species. Corals placed on MAT structures can grow up to four times faster than other propagation methods and are more likely to withstand coral bleaching events (when sea temperatures rise). The nursery will be cultivated from corals tha have been damaged either by storms or human activity and monitored using an Aqualink Smart Buoy, which records temperatures on the surface and on the

ocean bed. At appropriate phases of the project, guests at Soneva Fushi will be invited to join in with the restoration efforts.

Six Senses Laamu will also be targeting guest education, particularly of young visitors as part of the Maldives Underwater Initiative's Junior Marine Biology programme. The programme is the first of its kind in the Maldives and pairs one-on-one mentoring from the ten MUI marine biologists. Kids are invited to 'choose their own adventure' for a personalised programme, which could include completing a science experiment, a snorkel adventure, or making a conservation video.

So far this year more than 60 children have participated and during the pandemic, the MUI team even created an online version for children to do at home. The free online initiative (www.sixsenses. com/en/junior-marine-biology) is still available.

So if we're lucky enough to have a trip to the Maldives booked, what should we, as visitors, be doing to minimise our impact?

"As a Green Fins partner, Six Senses Laamu promotes experiences that aim

to observe the marine life's natural behabour and inflict no damage," said Roe. "We don't anchor during any excursion and we don't feed fish, which can interfere with the marine food web. We ask guests not to touch or stand on any part of the reef or take any shells or corals from the beach."

She also advises packing reef-safe sunscreen.

Six Senses Laamu has a dolphin watching code of conduct - dolphin cruises should approach dolphins from the side of the pod and boat speeds should be reduced when within 50m of the pod.

"We're also fortunate to have green sea turtles nesting on our beaches. During a hatching event guests are asked to remain quiet, not to use any white light and to stay still so we don't touch or disturb the hatchlings," said Roe. "We appreciate all our guests' help in making these events as natural as possible."

Holidaying in an eco-sensitive area of the world such as the Maldives comes with responsibilities. If we all try and do the right thing, those crystal-clear waters, bubbling with marine life, will remain for generations to come.





