



What Are Artificial Caves?

Artificial caves are an important tool in helping to manage fishing stocks and give a boost to the fisheries industry. Created from eco-friendly materials, they can be placed in advantageous locations to encourage the migration and multiplication of fish specimens in a given area, which not only replenishes ailing species but also makes life easier for fishermen.

One example where artificial caves have been put to good use can be found in the UAE. In 2016, the country's Ministry of Climate Change and Environment (MOCCA) announced plans to install more than 1,000 such caves over the coming months. The first 100 sites were put in place in September 2017 and last month, an additional 200 were constructed and installed, boosting fishing numbers in and around the UAE coastline.

A serious concern

A recent study found that [55% of the Earth's waters](#) are covered by commercial fisheries, leading to a shortage of some species in certain areas. The UAE has suffered more than most; according to the Emirates Wildlife Society, [local fish stocks dropped by 80%](#) between 1978 and 2011 thanks to overfishing.

The dilemma led MOCCA to implement a series of different measures geared towards replenishing those stocks, including reducing the number of fishing licenses issued per annum, imposing seasonal bans at certain times of the year and establishing protected zones into which fishing boats are not allowed to stray.

Artificial habitats have also been targeted as a method of alleviating the issue, with the installation of artificial coral gardens over an area of 850 square metres [announced](#) in March 2018. By then, the first stages of the cave programme had already been implemented, as the government targeted the installation of a total of 1,300 caves in just over a year.

Caves to the rescue?

MOCCA announced that it would commission the construction and installation of artificial caves from Delma Industrial Supply and Marine Services. The caves must use eco-friendly materials in their construction and are not to be installed anywhere near oil and gas pipelines, natural coral caves, military bases or in the path of shipping lanes. At the same time, the caves will be put in place within three nautical miles of the shore to make it easy for fishermen to reach them.



The first examples of the scheme were installed at Ras al Khaimah in September and Hamriyah in October 2017, with 100 more following at Jumeirah Harbour at the end of April 2018 and 300 more at 30 different sites in May of that year. In December, just days after [World Fisheries Day](#), an additional 200 were installed by Fish Farm LLC in the space between Khor Fakkan and Al Badiyah Island.

“The installation of artificial caves serves this target well as they represent an alternative for natural habitats that incubate marine life, particularly small fish,” [explained Major General Pilot Ahmed Mohammed bin Thani](#), who serves as the current chairperson of the Marine Conservation Society. “Such efforts facilitate research and control activities to assess the current state of the marine environment.”