



## WHAT IS LIFE BELOW WATER?

“Life below water” refers to the plants, animals and other organisms that live in our seas and oceans.

Around 70% of the Earth’s surface is covered by water. Bearing in mind that **97% of Earth’s water is found in oceans, which represent 99% of the living space on the planet by volume<sup>1</sup>**, the oceans, their temperature, chemistry, currents and life **drive the global systems that make the Earth habitable for humankind<sup>2</sup>**.

Effectively, rainfall, drinking water, the climate, the weather, the coastlines, a large part of the food we eat, and even the **oxygen in the air we breathe comes from the seas and oceans**. In fact,

half of the oxygen produced by plants comes from the oceans, which are also responsible for absorbing 50% of the carbon dioxide released by people into the atmosphere by burning fossil fuels to generate energy.

In total, **there are around 230,000 documented marine species<sup>3</sup>, varying in size from microscopic (including plankton and phytoplankton) – as small as 0.02 micrometres – to large cetaceans (whales, dolphins and porpoises)**, which in the case of the blue whale (the largest animal) grow to up to 33 metres in length<sup>4</sup>.

<sup>1</sup> *Living Ocean*, NASA Science.

<sup>2</sup> Sustainable Development Goal 14: Life Below Water, United Nations Development Programme (UNDP).

<sup>3</sup> DROGING, Bob, *Mapping an ocean of species*, Los Angeles Times, 2<sup>nd</sup> August 2009.

<sup>4</sup> BORTOLOTTI, Dan, *Wild Blue: A Natural History of the World’s Largest Animal*, St. Martin’s Press, 2008



## THE LAW OF THE SEA

Improving the preservation and sustainable usage of ocean resources through international law is the key to mitigating some of the challenges faced by oceans, including pollution. Some 80% of the pollution suffered by oceans is caused by human activity, as is the speeding up of the melting icecaps. The rate at which the ice is melting has tripled since 2007<sup>5</sup>.

**The international legal framework for the preservation and sustainable usage of the oceans, seas and marine resources is included within the United Nations Convention on the Law of the Sea (UNCLOS), approved in New York in 1982 and regarded as the *Constitution of the Oceans*. Its 203 articles were conceived to establish a “legal order for the seas and oceans, facilitating international communication and promoting the peaceful use of ocean space, the equitable and efficient management and utilization of its resources, and the study, protection and preservation of the marine environment”, with the aim of contributing to “the creation of an international economic order that is both fair and equitable, and that takes into account the interests and needs of mankind as a whole” in particular those of island States.<sup>6</sup> For example, for countries such as the Republic of**

<sup>5</sup> PIERRE-LOUIS, Kendra, *Antarctica is Melting Three Times as Fast as a Decade Ago*, New York Times, 13<sup>th</sup> June 2018

<sup>6</sup> Preface, UNCLOS, New York, 1982

**Fiji, an archipelago in the South Pacific (currently home to almost a million people), slowing down the speed at which the icecaps are melting is a question of survival.** If these small island States disappear their inhabitants will be forced to evacuate and look for new homes, with “devastating consequences upon their human rights, including the right to self-determination and development.”<sup>7</sup>.

Sustainable Development Goal (SDG) 14 proposes implementing the mechanisms needed to preserve and sustainably use the oceans and seas, thus mitigating the effects of climate change.



## PROTECTING THE COASTS TO REDUCE POVERTY

Marine coasts guarantee the livelihood of many communities in which tourism and fishing are the main source of income – **59.6 million people participated in the primary sector of capture fisheries and aquaculture in 2016, of which 85% was carried out in Asia, followed by Africa (10%).**<sup>8</sup> The coasts “contribute to poverty reduction by

<sup>7</sup> KNOX, John H., *Climate change and human rights*, Social Observatory of “La Caixa”, September 2016

<sup>8</sup> *The State of World Fisheries and Aquaculture: Meeting the Sustainable Development Goals*. United Nations Food and Agriculture Organisation (FAO), Report 2018.

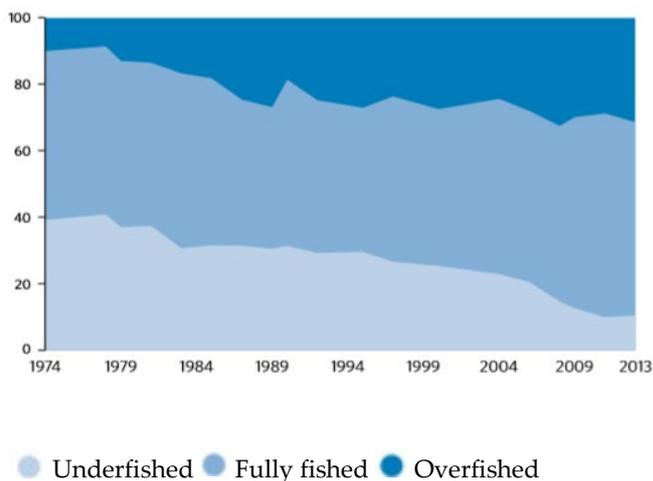


improving fish catches and income and improving health. They also help improve gender equality, as women do much of the work at small-scale fisheries.”<sup>9</sup>

In alignment with the latest FAO Report about the State of World Fisheries and Aquaculture, published in 2018, **in 2016 total fishing production reached a historical high of 171 million tonnes, of which 88% were used for direct human consumption.** “Since 1961, the annual world growth of fish consumption has been twice that of demographic growth, highlighting the fact that the fishing sector is fundamental in achieving the world target of eradicating hunger and malnutrition.” Within fishing production, sustainable fishing – in many cases using artisanal methods – represents 77% of fleet fishing and 80% of continental fishing.<sup>10</sup>

However, the growing world demand for fish has led to a disproportionate rise in the overfishing of the marine environment. **The global proportion of marine fish being overfished (i.e. at biologically unsustainable levels) rose from 10% in 1974 to 31% in 2013**<sup>11</sup>.

Graph I. Proportion of fish stocks within biologically sustainable and biologically unsustainable levels, 1974-2013 (percentage).  
Source: SDG Report 2017.



For this reason, SDG14 aims to effectively regulate harvesting and to end overfishing, illegal and unregulated fishing and destructive fishing practices (target 14.4), and to prohibit certain forms of fisheries subsidies that contribute to overcapacity and overfishing (target 14.6) by 2020<sup>12</sup>. The problem is that 2020 is already too close.

<sup>9</sup> Life Below Water: Why it matters. United Nations Development Programme (UNDP).

<sup>10</sup> Too Much Fishing: The Problem, Greenpeace

<sup>11</sup> SDG Report 2017, UNDP.

<sup>12</sup> More information about the 10 SDG14 targets ([link](#))



## WHO CAN DO WHAT?

### ON AN INTERNATIONAL LEVEL



International protection of Small Island Developing States is fundamental to ensuring their survival. Target 14.7 establishes that these demographics should receive more economic benefits from the sustainable use of marine resources. Furthermore, in June 2017 the “Communities of Ocean Action” was implemented to follow up the over 1,400 commitments announced in the High-Level United Nations Ocean Conference.

### ON A NATIONAL LEVEL



Northern countries must invest in protecting the oceans. The Convention on Biological Diversity indicates that broadening measures to protect the world’s oceans requires a one-off public expenditure of US\$ 32 billion and an annual amount of US\$ 21 billion for on-going costs. More funding is also required for research (target 14.a).

### ON A LOCAL LEVEL



Valencia Oceanogràfic works to show the public what is really going on in our seas. Discover the work of the marine biologist Javier León Rafael in the [FABRE Testimony SDG14](#).

## AND WHAT CAN YOU DO?



“We forget that the cycle of water and of life are one”. Jacques Y. Cousteau

### Infant and Primary pupils

Alex loves water creatures and dives to take photos of them. Discover his adventures with your Infant class, as he gets to know [dolphins](#), [turtles](#), [whales](#) and [many more creatures](#)... Next, read them the story about [Poseidon, the King of the Marine Kingdom](#), a Greek god who lived happily under the sea with all the marine creatures that your pupils have got to know. One day, Poseidon gets angry when he sees people spoiling his kingdom. How could we help Poseidon?

With Primary pupils you could put on a theatre show. Each pupil could create a fish mask (get ideas from [this link](#)) and act out the play suggested by [Ediciones Tralarí](#) about [The Sea Circus](#).

### Secondary and Baccalaureate

Target 14.b establishes that small-scale artisanal fishers should have access marine resources and markets. Despite constituting one of the most important sectors for the sustainable development of communities, artisanal fishing is still overlooked by many governments around the world, such as in Guatemala where fishers claim to feel forgotten. Hold a debate about the video [Fishing in Guatemala: Art or suffering](#). [In this video](#), you can also discover how the people from Formentera fish in an artisanal and sustainable way using the Peix Sec tradition.

If this is artisanal fishing, where does the fish we eat come from? For example, do tins of tuna come from over-exploitation? Discover the Greenpeace campaign: [For sustainable tuna](#).

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