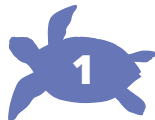


Famine

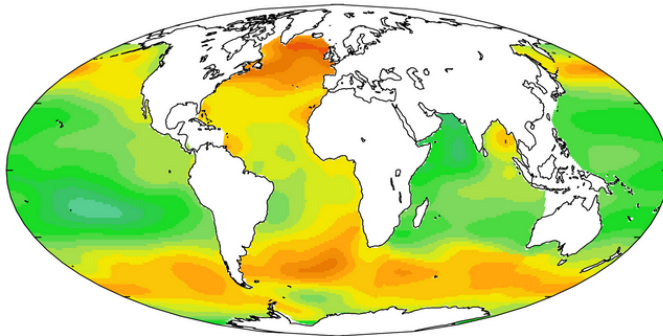


Fisheries resources are absolutely essential to satisfy the food needs of millions of people in the world, the destruction of marine biodiversity has an impact on ecosystems and therefore the number of fish that it will be possible to catch, which could create situations of tension or even famine.

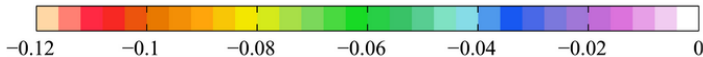
Set 2



Ocean Acidification



Δ sea-surface pH [-]

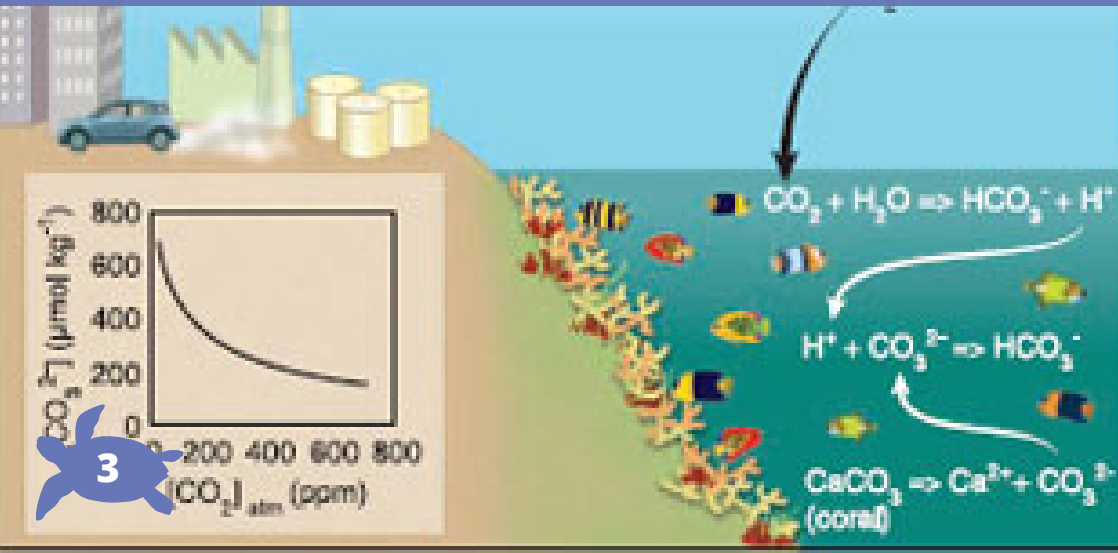


The natural acid-base reaction between water H₂O and carbon in the atmosphere leads to a change in the pH of the water in the oceans, which becomes more acidic.

Set 2



Production of Carbonic Acid



There is a natural acid-base reaction between water H₂O and carbon in the atmosphere that produces carbonic acid and H⁺ ions. This reaction has become important in the evolution of the pH of the oceans as the concentration of carbon in the atmosphere increases.



Disruption of the growth of marine organism



There is currently no consensus on the cause of the loss of biomineralisation capacity in organisms with a calcareous skeleton or shell. However, it is known that it is created either by the presence of too much carbonic acid in the water or by the modification of the pH of the water by H^+ ions. The reaction between H_2O and CO_2 is the cause in both cases.



A thermometer is shown partially submerged in water. The background is a bright, orange-yellow gradient, suggesting a sunset or sunrise. A blue banner with white text is positioned across the top of the image. The thermometer's scale is visible, with markings for 50, 40, 30, 20, 10, 0, 10, 20, 30, and 40. The red liquid level is positioned between the 0 and 10 marks on the lower scale.

Temperature increase

Since the oceans contain a phenomenal amount of water, they absorb a great deal of heat from the atmosphere, which has an effect on their temperature, especially at the top.

Set 2



Migration of certain species



As temperatures rise rapidly in their habitats, fish and marine life in general must migrate to find temperatures suitable for their lifestyle.

Set 2



Disturbances to coastal ecosystems



Degradation and destruction of coastal habitats such as mangroves, salt marshes and seagrass beds reduce breeding, feeding and protective areas for many marine species, leading to a decrease in biodiversity.



Less protection against natural disasters



Exceptional climatic events impoverish natural environments through erosion and flooding, for example. They alter the conditions for marine life in coastal areas and the biodiversity they support.



Decrease in marine biodiversity



**Marine fauna and flora are affected by the consequences of human activities on ecosystems. Species may may migrate or disappear. Others may thrive and proliferate and invade the spaces of others.
can thrive and proliferate and invade the spaces of others.**



Pollution



Man-made pollution, such as oil spills, plastic waste, toxic chemicals and nutrients from intensive agriculture, contaminates the oceans and threatens marine biodiversity. Pollution adversely affects the health of marine ecosystems and the species that depend on them.

Overfishing



Excessive overfishing depletes fish stocks, unbalances marine ecosystems and threatens the food security of fisheries-dependent coastal communities. Sustainable fisheries management is essential to preserve marine biodiversity.

Disruption of reproduction



Disruption of species reproduction results in reduced reproductive rates, desynchronisation of reproductive cycles and reduced survival of larvae and juveniles. These disturbances are caused in particular by climate change, pollution and habitat destruction and have devastating effects on marine biodiversity.