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# Greenpeace Global Mission to Save Our Seas

## The State of our Oceans

The world's oceans suffer continuous pressure from human activities. The world's population continues to grow and is increasingly concentrated in areas close to the sea. The industrial and agricultural activities required to support this growth, together with the quantities of human and industrial wastes that they generate, means that coastal environments are subject to unprecedented levels of disturbance. The impacts of human activity extend well beyond the immediate coastal zone into the more open sea, where the fishing industry predominantly operates, and even into the deep oceans where plans exist to exploit deep-sea biological and mineral resources and oil reserves.

The number of species living in the oceans is estimated at several hundreds of thousands, although continued exploration of the deep sea may reveal millions more. Previously unknown species living in the vast ocean depths continue to be discovered. At the same time, other species have been or are currently being driven towards extinction through devastating human impacts. Of all the human activities affecting the oceans, the one most clearly associated with obvious and dramatic ecological change is fishing.

## Fishing the life from our oceans

Overcapacity in the global fishing fleet has led to widespread overfishing of the planet's resources. Of the major stocks, 10% have been overfished or are recovering from overfishing, 15-18% are known currently to be overexploited, while 47-50% are at their biological limits. Only around a quarter of stocks are currently being exploited in a manner which can be regarded as in any way sustainable and this is likely to change as these stocks are targeted more intensively.

## The impacts of global warming on our oceans

Where fish stocks have collapsed, even complete closure of the fisheries has not resulted in regeneration of the stocks. It has become clear that other factors are operating. The destruction of the ozone layer by CFCs, for example, could impact marine ecosystems, particularly in polar regions, by increasing the amount of UV-B radiation reaching the surface, with highly uncertain but potentially severe consequences. Continued use of fossil fuels, however, and the planetary warming effects of release of carbon dioxide to the atmosphere is now regarded as one of the greatest threats to the environment, likely to produce changes in the world's physical environment greater than any seen since the end of the last ice age.

A combination of melting ice caps and thermal expansion of the water in the oceans

means that many low lying island states will be submerged. Many coastal areas and estuaries will be flooded by the sea, while an increase in extreme weather patterns will increase erosion and flooding. It is possible that even the fundamental patterns of ocean circulation which largely govern the earth's climate will be changed, leading to widespread disruption of both ocean and terrestrial ecosystems. Already there is some evidence that the populations of planktonic organisms which provide the basis for all life in the oceans, including the fish populations, are changing in response to these climatic changes.

**We're still polluting our seas**

Pollution problems exist in many areas of the world. There are local impacts of domestic sewage, industrial discharges and radioactive discharges on the quality of the marine environment and living marine resources. In addition some of the chemical contaminants and radioactive elements can be transported long distances in the atmosphere and in ocean currents to places far from their origins. Local and regional impacts upon the growth of microscopic marine plants result from the nutrients discharged with sewage effluents and agricultural runoff. Runaway growth of algae can ultimately result, causing the expansion of deoxygenated zones, or 'creeping dead zones' (CDZ), at the seabed in which marine life cannot exist.

Besides the classic pollution caused by large scale highly damaging spills of oil, ships have also been responsible for the transport of species from one part of the world to another in ballast water. In many cases, these alien species have established themselves in the new environment and proliferated rapidly. In the absence of natural predators or other limitations, these accidental introductions can cause severe imbalance in the local marine ecosystems and seriously damage the associated economies. Floating marine litter also acts as a means whereby alien species can be transported across oceans to new areas, as well as presenting direct threats to wildlife in itself.

**Regional habitat destruction**

The common, global threats are reinforced by various threats operating at the regional and local level. Widespread habitat destruction is taking place in many parts of the world. Mangrove forests are routinely cleared to allow the development of aquaculture, with huge impacts on biodiversity. Mangroves provide a critical habitat for many species in intertidal and estuarine areas. Healthy mangrove forests are key to a healthy marine ecology. These wetland forests may be disappearing even more quickly than the inland forests. They once covered 75% of the coastline of tropical and subtropical countries, but now less than 50% remain and of that remainder, 50% is in a damaged or degraded state.

Seagrass beds also harbour biodiverse communities in both temperate and tropical regions and these can be damaged or destroyed by dredging, coastal development or changes in water quality. This alarming situation is mirrored by the widespread degradation of global wetland environments, of which around half have now been lost in the last few decades alone. Finally, coral reefs are globally threatened by climate change. Elevated water temperatures cause bleaching and encourage disease. Increasing concentrations of dissolved carbon dioxide in ocean waters interfere with the very reef building process itself. The future does not look good for these critical habitats.

Wherever attention is focused on the marine environment, a mixture of problems can be

identified. These include the wide ranging and overarching global influences such as overfishing and climate change. Equally serious, at a local and regional level, the physical degradation of critical marine and wetland habitats and the pollution caused by urbanisation and industrialisation continue to impact marine systems.

**For media inquiries, please contact the Greenpeace International media hotline:**
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