



PROTECTING MARINE ENVIRONMENTS GUIDE

INTRODUCTION

Marine ecosystems face growing pressures from human activities, including pollution, overfishing, and habitat destruction. The ocean covers 71% of the Earth's surface and supports approximately 80% of the planet's biodiversity, making its health critical to the overall balance of life on Earth.

The significance of preserving marine ecosystems includes:

- **Biodiversity**: Marine species support the broader biodiversity of the planet, providing food, medicine, and ecological balance.
- **Climate regulation**: Oceans act as a carbon sink, regulating climate and absorbing excess carbon dioxide.
- **Economic value**: Healthy marine ecosystems support industries such as fishing, tourism, and pharmaceuticals, contributing to global and local economies.
- **Human health and livelihoods**: Oceans provide food, resources, and recreational opportunities to billions of people around the world.

Businesses play a key role as responsible stewards of oceans, seas, and marine resources. Oceans underpin the global economy. Over 90% of the world's trade is carried by sea, supporting more than USD \$2.5 trillion of commercial activity every year. When businesses negatively impact marine life, the consequences extend beyond ecosystems to human communities, economies, and public health. Recognising the role businesses play in protecting marine environments is vital for long-term sustainability.

HOW OPERATIONS AND PRODUCTS HARM MARINE LIFE

Many business practices and products inadvertently harm marine ecosystems. Listed below are some examples your business should consider when analysing the impact of products and operations on marine environments:

SINGLE-USE PLASTICS

Plastics are one of the most significant pollutants in marine environments. An estimated 8-12 million metric tonnes of plastic enter our oceans every year. (This is on top of the estimated 200 million metric tonnes that already circulate in marine environments.) Items such as plastic bags, straws, drinks bottles, and food packaging often end up in oceans, where they break down into microplastics and consumed by marine life, harming ecosystems and entering the food chain.



MICROPLASTICS

As well as being produced as a result of the breakdown of larger plastic products, microplastics also take the form of microfibers from clothing, plastic pellets, or microbeads often used in personal care products and cleaning products. These tiny particles wash down the drain or are shed during the laundry process, ending up in rivers and oceans.

CHEMICAL POLLUTANTS

Some products, including detergents, paints, and industrial waste, release harmful chemicals into water systems. These chemicals disrupt marine life, damage coral reefs, and poison aquatic organisms.

GREENHOUSE GASES

The ocean absorbs about 90% of the excess heat generated by increased greenhouse gas (GHG) emissions, leading to rising sea temperatures. This warming causes:

- Coral bleaching: which damages coral reefs and the biodiversity they support.
- Marine heatwaves: that disrupt nutrient cycles and alter species distributions.
- Melting of sea ice and rising sea levels: which threaten coastal habitats, species, homes and business operations.

OVERFISHING AND DESTRUCTIVE FISHING PRACTICES

Some fishing methods, including seabed trawling, can result in the destruction of habitats such as coral reefs and seagrass beds, which are crucial for biodiversity and serve as nurseries for many species. Overfishing removes fish from the ocean faster than they can reproduce, leading to dramatic declines in fish stocks.

NON-SUSTAINABLE RESOURCE EXTRACTION

Non-consumable marine resource extraction, such as offshore oil, gas, and mineral (deep-sea mining) activities, harms the ocean through multiple pathways including habitat destruction, pollutants and toxic discharges.

SHIPPING

Commercial shipping is a major source of continuous, low-frequency underwater noise, which has increased significantly over the past 50 years, disrupting marine animals that rely on sound for communication, navigation, and hunting. Ships also emit GHGs and other harmful air pollutants, and can lead to chemical pollution through oil spills, discharge of hazardous substances, and the release of toxic chemicals from antifouling paints.



IDENTIFYING YOUR IMPACT

For businesses to take the lead on marine protection, it's essential to start by identifying how your activities connect to and impact the oceans throughout your entire value chain. Once these links are clear, forward-thinking companies can adopt policies and operational practices that safeguard marine ecosystems at every stage of their operations.

Businesses can also leverage their expertise in research, innovation, and product development to create solutions that minimise harm to the oceans and actively support their recovery.

For industries with minimal direct marine impact:

- **Examine your business activities for any links to indirect impact**, such as use of plastics, packaging, chemicals, GHG emissions or water-intensive processes.
- **Assess suppliers and procurement practices** to ensure they do not contribute to unsustainable fishing, deforestation, or pollution.

For businesses in industries with direct marine impact such as fishing, shipping, offshore oil and gas extraction, coastal industry such as shipyards, deepsea mining etc.:

- **A structured impact assessment process** should be followed (and is sometimes legally required) often modeled on an Environmental Impact Assessment (EIA) framework.
- **Define the scope** of the assessment by identifying which aspects of the marine environment could be affected (e.g., water quality, habitats, species, socio-economic factors).
- **Identify and describe all potential impacts** (direct, indirect, cumulative) that the business's activities could have on the marine environment.
- Assess the magnitude and significance of these impacts, considering the sensitivity and recoverability of affected receptors

Need help with an Environmental Impact Assessment? Contact the team: info@future-plus.co.uk

MITIGATING YOUR IMPACT

Mitigating actions are of course dependent on the type and scale of impacts identified during the assessment process. Some simple examples include:

- Reducing or replacing plastics and chemicals in products, processes and packaging.
- Labelling products to encourage return, reuse and/or recycling.
- Improving waste management and recycling processes.



- Designing products with end-of-life recyclability or reuse in mind.
- Tracking and seeking to reduce energy use and emissions.
- Implementing water-saving measures and avoiding discharging untreated wastewater or hazardous substances.
- Educating staff and customers on sustainable practices and encouraging eco-conscious behaviors, such as reducing plastic use and supporting conservation efforts.
- Source from suppliers with robust environmental commitments and third party certifications such as MSC.

PARTNERSHIPS FOR MARINE PROTECTION

Partnerships are a powerful way for businesses to amplify their impact on marine protection and make meaningful progress toward United Nations Sustainable Development Goal 14, <u>Life Below</u> <u>Water</u>.

By collaborating with governments, NGOs, local communities, suppliers, and industry peers, businesses can pool resources, share expertise, and drive innovative solutions that would be difficult to achieve alone:

- **Working together** enables organisations to combine financial, technical, and human resources, leading to more effective and far-reaching conservation outcomes.
- **Partnering** with respected environmental organisations demonstrates a genuine commitment to sustainability, strengthening brand reputation and building trust with customers and stakeholders.
- **Partnerships open doors** to scientific research, best practices, and influential networks that can inform business strategies and create new opportunities for sustainable growth.
- Collaborating with local communities ensures that conservation efforts are culturally appropriate and create economic opportunities, fostering long-term stewardship of marine resources.

NEED MORE HELP?

We'd love to talk! You can contact us at: info@future-plus.co.uk