

## FROM THEORY TO PRACTICE

### COMBATING IUU FISHING

The high seas can be fished by all nations, but while international agreements limit catch sizes and protect certain species there is little effective control over the actions of fishers. It is estimated that illegal, unregulated and unreported (IUU) fishing accounts for up to 30% of total catches around the world. In some cases, catches of commercially valuable species could be 300% greater than permitted levels due to IUU fishing. High-value species including tuna, orange roughy and Patagonian tooth fish are especially sought after by illegal fishers. Pirate boats are responsible for pushing the Patagonian tooth fish to the verge of extinction in the Southern Ocean.

In its effort to tackle IUU fishing, WWF has joined the OECD Ministerial Task Force on IUU Fishing established in 2003. The Task Force is made up of the Ministers of Fisheries of Australia, Canada, Chile, Namibia, New Zealand and the United Kingdom as well as scientists, legal experts, environmental groups and business. The objective of the Task Force is to determine the economic incentives that lead to IUU fishing and recommend measures to address them.

### PRIORITY AREAS

#### Building a conservation vision for the Grand Banks

The Grand Banks is one of the richest and most overexploited ecosystems in the world whose sustainable management is essential for both the fishing industry and biodiversity conservation. The Grand Banks extends beyond national jurisdiction into international waters and therefore its management will require a high seas component.

WWF is in the early stages of developing a management plan in cooperation with governments

and other stakeholders. The two general objectives of the plan are: 1) the implementation of a zoning approach, including protected areas, for the entire ecosystem; and 2) the development of international and institutional legal and technical mechanisms to operate both within and beyond national jurisdiction.

To further the protection of the Grand Banks ecoregion WWF is taking some practical steps:

- ▶ Encouraging states fishing the Grand Banks (and all countries with distant water fleets) to step up enforcement and international cooperation to reduce IUU fishing;
- ▶ Exploring possible management actions and conservation measures with regional fisheries management organizations such as the North Atlantic Fisheries Organization;
- ▶ Discussing potential measures to decrease bilge oil dumping with individual countries and the International Maritime Organization; and
- ▶ Raising awareness and discussion of the Grand Banks conservation vision among the relevant countries as well as international fora such as the Convention of the Parties to the CBD and the UN.

The Grand Banks will serve as a useful model for the development of management and conservation regimes for other areas of the high seas.

#### Southern Ocean islands

WWF is working with government institutions in Australia, France and South Africa to explore the possibility of high seas protected areas in the Southern Ocean around Australia's Heard and McDonald Islands, France's Kerguelen Island and the Prince Edward Islands of South Africa.

#### Norway's coral reefs

Norway has taken steps to protect several of its cold-water coral reefs from trawling including the world's largest known Lophelia reef – the 43km long Røst reef. Norwegian fishermen have been supportive of the coral protection, recognizing the importance of the coral reefs for their own livelihoods.

#### Hydrothermal vents in the Atlantic

WWF worked with the Government of the Azores to establish the first two deep sea marine protected areas in the Atlantic Ocean around the Lucky Strike and Menez Gwen hydrothermal vent fields. At a depth of 1,700 meters, the Lucky Strike field covers 21 active geysers across an area of roughly 150 sq. km.

## WWF'S ROLE

WWF recognises that building international support for the protection of the high seas is a complex process. In the short term, we are joining global efforts to immediately protect vulnerable habitats and address the unsustainable exploitation of resources in the open ocean. WWF promotes solutions that work for industry, government and conservation. Some recent work includes:

- ▶ promoting the use and application of existing international legal regimes for high seas protection;
- ▶ identifying urgent priority sites and pilot areas on the high seas for conservation and engaging governments and stakeholders in support;
- ▶ developing a 10-year action plan to deliver high seas protected areas with IUCN-The World Conservation Union;
- ▶ working with governments and RFMOs to improve the management of fisheries, targeting commercially important and vulnerable deep sea fish species;
- ▶ encouraging the new UN Task Force on Flags of Convenience to increase the transparency of Flag State responsibilities;
- ▶ working with other governments and NGOs to address threats like IUU fishing and the impacts of trawling;
- ▶ requesting the UN General Assembly to call a moratorium on bottom trawling on seamounts and deep sea corals.

### CALL TO ACTION

WWF calls on the international community to turn its attention to the sustainable use of the high seas. Immediate threats, such as deep sea trawling on cold-water coral reefs, need urgent action to put emergency measures in place until more long term legal solutions can be found. In the medium term, an adequate legal framework for the sustainable management of the high seas needs to be established. Such a regime would allow for the establishment of high seas management and conservation zones including protected areas.

Sensible management of the high seas will be essential in the coming years if we are to conserve the planet's rich marine biodiversity and bring about long-term food security for the rapidly growing world population.



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Drawings by Bruce Mahalski  
WWF for a living planet!



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# High seas

## MANAGEMENT AND CONSERVATION

The high seas cover roughly half of the Earth's surface. They account for 80% of the planet's living space or biosphere, and represent almost two-thirds of the world's oceans. The potential of the vast open ocean and deep sea environments in terms of fisheries, genetic resources and mineral wealth is enormous.

Until recently, the high seas were generally regarded as unknown. Studies of hydrothermal vents, deep sea trenches, seamounts, deep sea coral reefs and submarine canyons have revealed a multitude of new species, with many more yet to be discovered. Today it is thought that there may be more species in the deep sea than in all the other environments on Earth combined. By some estimates, as many as 100 million species could inhabit the deep sea.

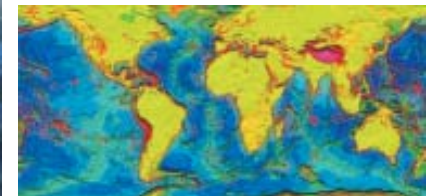
We are only beginning to understand the critical role of the ocean in regulating global climate and the general health of the planet. And with many coastal fisheries already exhausted, the deep seas are becoming increasingly important for global food security. Ensuring the sustainable exploitation of the high seas should therefore be a priority for the global community.

Threats to the high seas come from commercial fishing, oil and gas

exploitation, mining, shipping bioprospecting, marine pollution, and illegal fishing. Technological advances in two industries in particular, deep sea fishing and oil production, now allow for operations at depths down to 2,000 metres putting enormous pressure on deep sea habitats and species. Deep sea fish species are especially vulnerable to over-fishing because they are usually slow growing and produce few offspring. Thus large numbers can be caught quickly but stocks replenish themselves very slowly.

The high seas are open-access common areas which are subject to international or regional agreements. However, many activities are not restricted, and where regulations do exist, they are rarely enforced. New management regimes are required to protect species and habitats while allowing for sustainable resource use.

These new regimes will require innovative thinking and creative approaches to test existing legal frameworks and to enforce regulations over large offshore areas. High seas protected areas and management conservation zones are two such approaches that can be used to safeguard especially important and vulnerable areas.



High seas are those areas (blue and green) beyond Exclusive Economic Zone limits (marked in red).



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## DEEP SEA BIODIVERSITY



We are only just beginning to comprehend the diversity of the life of the deep seas. Each scientific expedition to the dark depths unearths a plethora of species new to science. Estimates of the number of species inhabiting the deep sea range from 500,000 to 100 million.

**Seamounts**, which are effectively isolated mountains of biodiversity beneath the surface of the sea, are high in endemic species. Because of the slow growth and restricted distribution of many seamount species, they are considered very vulnerable to human impact. At least 50,000 seamounts over 1000 metres high are estimated to exist in the world's oceans. Many smaller 'mini-seamounts' are also recognized as areas of high biodiversity and endemism.

**Deep-sea coral reefs** are found along the continental slope throughout the world. They also occur on seamounts, plateaus and ridges. Those in the Northeast Atlantic may be up to 10,000 years old. The number of known deep sea coral species is now greater than the number of coral species found in shallow and tropical seas. In the Northeast Atlantic alone, more than 1,300 have been found associated with some reefs.

**Hydrothermal vents** also host an array of life which has adapted to living in special conditions – high temperatures and highly toxic waters. Bacteria have learned to get their energy from the sulphur emitted by vents and form thick mats on the seabed. Mussel species have developed a symbiotic relationship with such bacteria by providing shelter in return for energy. Specialised species such as these cannot move between vents and so each vent has its own unique set of species – often entirely new to science.

### VULNERABLE HABITATS AND BIOLOGICAL COMMUNITIES OF THE HIGH SEAS

- Deep-sea coral reefs
- Cetaceans
- Seamounts
- Hydrothermal vents
- Gas hydrates
- Deep-sea trenches
- Boundary fish stocks
- Seabirds
- Submarine canyons
- Cold seeps and pockmarks
- Abyssal plains



## MOBILIZING ACTION

In recent years momentum has been rapidly building for global action to ensure sustainable use of high seas natural resources. In 2002, the UN General Assembly (UNGA) recognised the need for technical and legal efforts to conserve high seas biodiversity. The 2002 World Summit on Sustainable Development (WSSD) set 2012 as the target date for establishing a representative network of marine protected areas (including high seas areas).



In 2003, marine experts at the 10th IUCN World Parks Congress developed a 10-year strategy to put in place a global system of high seas marine protected area (MPA) networks by 2012. The Congress also recommended that at least five high seas MPAs be established by 2008.

At the 7th Conference of the Parties (COP 7) to the Convention on Biological Diversity (CBD) in 2004, governments stressed the "urgent need for international cooperation and action" for conservation and sustainable use of high seas biodiversity and called on the UNGA to urgently take the necessary measures to eliminate destructive practices like bottom trawling in high seas areas with vulnerable ecosystems.

### FORCES FOR CHANGE

Only international cooperation can ensure the sustainable use of the resources of the high seas. Issues such as sustainable fisheries management, conservation of biodiversity, and the exploitation of deep sea resources will need to be tackled. International agreements and conventions already govern some aspects of international waters but there is no single overarching legal framework that regulates activities on the high seas. Therefore, existing agreements need to be harmonised if the protection of the high seas is to be achieved. Actions that could be taken under these agreements include the following:

### INTERNATIONAL AGREEMENTS AND CONVENTIONS

- ▶ The United Nations General Assembly (UNGA) can pass resolutions to protect the high seas. For example, it could call for a moratorium on deep sea trawling in vulnerable areas such as cold-water coral reefs until legally binding conservation measures are in place.
- ▶ The UN Informal Consultative Process on Oceans and the Law of the Sea (UNICPOLOS) could advance international action and agreement to protect high seas biodiversity.
- ▶ The International Seabed Authority (ISA) regulates mineral exploitation but could also regulate the exploitation of living resources and ensure that marine ecosystems are considered in ISA licensing decisions.
- ▶ The Convention on Migratory Species (CMS) could be used to identify and generate international support for protecting key habitats on the high seas such as migration routes and breeding areas for marine turtles, cetaceans and seabirds.



### GLOBAL FISHERIES INSTRUMENTS

- ▶ Under the UN Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks, target stocks should be managed to protect biodiversity. If ratified and implemented more widely, this agreement would improve fisheries management and help protect the ecosystems of target stocks.
- ▶ The UN Food and Agriculture Organization (FAO) has developed International Plans of Action on issues such as seabird-by-catch, shark conservation, fishing overcapacity, and illegal fishing.

### REGIONAL AGREEMENTS

- ▶ Regional Fisheries Management Organisations (RFMOs) usually have the authority to close areas to fisheries, or establish protected areas to protect fish spawning or aggregating sites.
- ▶ The Commission on the Conservation of Antarctic Marine Living Resources (CCAMLR) can designate special areas for protection.
- ▶ The Parties to the Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR Convention) have agreed to include high seas areas in the OSPAR MPA network.
- ▶ The Mediterranean Protocol on Specially Protected Areas and Biodiversity can cover the high seas.

## A CONSERVATION FRAMEWORK



The high seas will require innovative legal thinking to allow for the establishment, management and enforcement of management regimes.

In order to establish a legal framework for the high seas the international community will need to:

- ▶ review and analyse existing legal frameworks and agreements to identify gaps and opportunities;
- ▶ test existing legal regimes and harmonise national, regional and international legal frameworks; and
- ▶ assess whether existing legal instruments are adequate to meet high seas management and conservation needs, or if new legal regimes will be required.

One innovative approach is the zoning concept visualized for the Grand Banks off Newfoundland, Canada. This will involve testing existing applicable legal regimes as well as tailoring legal mechanisms to meet the particular requirements of the various zones. One or more of these zones could include a high seas MPA. This zoning concept could be used as a model for other high seas areas.

### PROTECTING VULNERABLE SITES

If the high seas are to be exploited sustainably, then it will be necessary to establish management and conservation zones including protected areas. These will be essential not only for biodiversity conservation but also for the protection of the key fish spawning and aggregation sites that are the mainstay of fisheries in both international and national waters.

Marine Protected Areas (MPAs) have been created around the world to conserve areas of high biological diversity and as a tool for the wise management of marine resources. Yet, only 0.5% of the world's oceans have been protected, compared to roughly 13% of the planet's land surface. The high seas are even less protected – almost all existing MPAs lie within national jurisdictions.

### STEPS FOR DESIGNATING A HIGH SEAS PROTECTED AREA

- 1 Identify relevant authorities and interested stakeholders including those with customary rights
- 2 Gather relevant technical scientific and legal background information
- 3 Prepare a draft proposal for discussion among stakeholders
- 4 Examine available legal mechanisms
- 5 Actively promote the project to build broad support among stakeholders
- 6 Consider the political realities that exist for achieving success
- 7 Develop and finalize the proposal for high seas protected area designation
- 8 Prepare a management plan for the protected area
- 9 Mobilize resources to commence designation
- 10 Designate the MPA implement management and enforcement activities
- 11 Monitor and evaluate the success of the project

– WWF and IUCN

