

# Healthy oceans are our future

Key ocean proposals to the G7

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*ABOUT 3 billion people live within 100 miles (160km) of the sea, a number that could double in the next decade as humans flock to coastal cities like gulls. The oceans produce \$3 trillion of goods and services each year and untold value for the Earth's ecology. Life could not exist without these vast water reserves—and, if anything, they are becoming even more important to humans than before. [The Economist, 22 February 2014.](#)*

Seas and oceans are vital for the world's social and economic wellbeing, providing food, employment, energy, and resources for billions. However, the current over-exploitation of marine resources world-wide risks leading to irreversible degradation of marine ecosystems and loss of the services and benefits that they provide. Only by restoring our seas and oceans to health and securing productive ecosystems can the world further develop and sustain a sound economy.

We therefore ask the G7 countries to urgently step up their international efforts to curb overfishing, biodiversity loss and pollution.

The ocean's resources are the common heritage of mankind. Improving international governance of the oceans is a prerequisite in order to manage and use the resources and services the oceans provide within ecosystem limits. The alarming rate at which marine biodiversity is decreasing, should be countered with a strong agreement under the UN Convention on the Law of the Sea (UNCLOS) for the conservation and sustainable use of marine biodiversity beyond the jurisdiction of States. Overfishing should be halted by sustainable fisheries management policies and practices and the elimination of Illegal, Unreported and Unregulated fishing. The completion of an international network of well managed marine protected areas, and a strong post 2015 sustainable development framework with clear and ambitious targets to conserve marine and coastal habitat, fisheries and oceans are crucial.

Land and sea are closely connected and the health of our oceans can only be secured with a fast transition towards a resource-efficient and zero-waste circular economy, based on renewables. Only thus can the stream of waste into our seas be halted and can the dependence on unsustainable practices like deep-sea mining for non-renewable raw materials be avoided. The Energiewende in Germany has shown that such fundamental transitions are not only feasible but also create impressive economic growth and employment. The tools and knowledge for a transition to a circular economy are all there – all it needs is leadership, and the G7 countries are the best placed to lead by example.

We urge the G7 to prioritise the following goals:

- Post 2015 sustainable development goals with ambitious targets to conserve oceans;
- An international agreement to protect high seas biodiversity;
- Reducing marine litter; and
- Deep sea mining: halting the gold rush.

# 1 Post 2015 sustainable development goals with ambitious targets to conserve oceans

The international community is currently developing a set of Sustainable Development Goals (SDGs) with associated indicators to measure progress through the United Nations, which will establish global ambition, and guide practical policy steps and investment in sustainable development for the next 15 years or more. The SDGs package is due to be finalised shortly, in mid-2015, with the current proposal covering major development issues such as ending poverty and hunger, ensuring gender equality, combating climate change, and conserving ocean resources. It is envisaged to apply to all states and all activities anywhere, including maritime activities.

These goals are set to build on and extend the Millennium Development Goals (MDGs) that channelled investments in, among other things, education, sanitation, access to water and vaccinations in developing countries. While successful in some important target areas, the environment was not a major focus of the MDGs.

The SDGs will incorporate the environment – including the ocean – as one of the three pillars of sustainable development. It is a vitally important opportunity to advance and link the pursuit of a healthy ocean in the context of this major global agenda, to recognise the important role that oceans and ocean resources play in the economy of many communities within many countries, especially their contribution to food security and nutrition and to meeting jobs and economic development.

## Proposal to the G7:

*Securing post 2015 sustainable development goals with clear and ambitious targets to conserve marine and coastal habitat.*

*The G7 countries should strongly advocate for a strong post 2015 sustainable development framework with clear and ambitious targets to conserve marine and coastal habitat, fisheries and oceans, with the targets proposed by the UN Overall Working Group on SDGs as the minimum ambition level.*

## 2 An international agreement to protect high seas biodiversity

About two thirds of the oceans are situated in areas beyond national jurisdiction – the high seas and the international seabed.

Unfortunately, the use of these marine areas is insufficiently regulated by a plethora of sectoral international organisations and overlapping conventions and agreements. Moreover, the latter are often incompletely implemented. In addition, there is no organisation with a comprehensive mandate for ensuring the protection and sustainable use of the marine biodiversity of these areas. No internationally accepted process is in place to designate globally-binding marine protected areas in the high seas. At the same time, however, the intensity of use of these international waters and the seabed below them is increasing. One important example is the lack of regulations for the use of marine genetic resources.

In January 2015, after more than ten years of deliberations, a dedicated UN Working Group<sup>1</sup> concluded with a recommendation to start negotiations of an international agreement to supplement the UN Convention on the Law of the Sea. Such an agreement should set out comprehensive and binding rules, regulations and procedures for the protection and the sustainable use of marine biodiversity in areas beyond national jurisdiction.

### Proposal to the G7:

#### *Endorsement of an implementing agreement regarding the Convention on the Law of the Sea.*

*The G7 countries should unanimously demand that the 70th UN General Assembly follow the recommendations of the UN Open ended Working Group (BBNJ) and support a UN resolution that enables the setup of the preparatory committee to prepare negotiations of a new implementing agreement to the UN Convention on the Law of the Sea (UNCLOS), on the protection and sustainable use of marine biodiversity in areas beyond national jurisdiction.*

*The principle of “common heritage of mankind” needs to be an inherent part of this new implementing agreement and the regulations on the right of use of natural resources, especially marine genetic resources. Marine genetic resources must be managed and protected by the ISA, which should be entitled to set up regulations for sustainable use, a more coherent management policy and a globally fair distribution of any profits from these resources.*

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<sup>1</sup> UN Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction

### 3 Reducing marine litter

Marine pollution has become a serious problem – both for marine species and habitats as well as for humans. In addition to the general pollution of the ocean resulting from industrial emissions to air, dumped hazardous materials and pollutants, untreated sewage and fertilisers from agriculture, and polluted aquaculture water, marine debris, especially plastics is an increasingly highlighted threat today.

Three quarters of marine debris is plastic. The natural decomposition of plastics such as bottles or nylon fishing nets can take hundreds of years. Primarily packaging materials, but also waste from fishery and shipping traffic, are responsible for the suffering of more than one million seabirds and another roughly 100,000 marine organisms that each year die from this<sup>1</sup>. Microplastics – pieces of plastic smaller than 5mm – can meanwhile be detected in even the remotest marine environments across the globe. These tiny plastic particles form as larger plastics become brittle in the sea and break apart, but they are also entering the oceans ready-made due to their use in everyday items such as toothpaste and cosmetics. The tiny size of microplastics means they are easily ingested by a wide range of marine organisms, including important commercial food species and plankton. The toxic pollutants adhering to or contained in these plastics can accumulate in the organisms that ingest them and magnify in the food chain as a result of predation.

If the root causes are not tackled soon, the amount of plastic waste in our oceans is predicted to triple by 2050<sup>2</sup> in parallel with the growth of the global production of plastics – with far-reaching consequences for the marine environment and for people dependent upon a healthy ocean. It has been estimated that in 2010 4.8 to 12.7 million metric tons of plastic waste entered the oceans. There are significant economic effects associated with this: the cost of beach cleaning for EU municipalities is estimated at €413m per year<sup>3</sup>. The economic costs due to tourism reduction, harm to fishing and shipping activities are not fully understood, but smaller regional studies have shown them to be high.

The major part of plastic waste stems from onshore sources. These inputs must be addressed with urgency.

#### Proposal to the G7:

##### *50% reduction in marine litter by 2025.*

*G7 countries commit themselves to a target of 50% reduction in marine litter by 2025, in line with the Rio+20 global commitment to significantly reduce marine debris by 2025. A 50% overall reduction by 2025 is possible if total mismanaged waste is reduced to zero in the top 10 worst performing countries worldwide<sup>4</sup>. Although G7 countries do not factor in this top 10, G7 countries are in a unique position to demonstrate to the global community that these changes can be made with significant economic and environmental benefits, while reducing the input of waste to the oceans from their territories.*

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<sup>1</sup> Source: German Federal Environment Agency (UBA)

<sup>2</sup> “Also the plastic problem will increase dramatically during the next decade, as it is assumed that the global plastic production will triple by the year 2050 and making the assumption that a comparable fraction of plastics ends up in the marine environment, the plastic ending up in the marine environment would grow in parallel with the plastic production.” Wurpel, G., Van den Akker, J., Pors, J. & Ten Wolde, A. (2011). Plastics do not belong in the ocean. Towards a roadmap for a clean North Sea. IMSA Amsterdam, p.39

<sup>3</sup> Arcadis, for the European Commission 2014. Marine Litter study to support the establishment of an initial quantitative headline reduction target - SFRA0025

<sup>4</sup> Jambeck et al., Plastic waste input from land into the ocean. Science 347 (6223): 768-771 (2015)

## 4 Deep-sea mining: halting the gold rush

In the global search for new sources of raw materials, now also the deep sea has attracted the attention of states and companies. In recent years, the activities for exploring mineral resources<sup>1</sup> on the bottom of the sea, more than 200 metres under the surface of the water, have increased substantially. Many states and companies are in the process to develop and test deep-sea mining technologies. While the relevant knowledge base and legal frameworks still contain huge gaps, seafloor-grabbing is accelerating at an alarming speed. Companies, as well as countries (including several G7 ones), are racing to claim their stake in the seabed. In the Clarion-Clipperton Fracture Zone, for instance, an area of the size of North America has already been licenced for exploration. Commercial exploitation in the near future is actually conceivable - also in international waters<sup>2</sup>.

Intrinsically linked to the exploitation of finite non-renewable resources, deep-sea mining poses an important sustainability concern. The materials coveted are seafloor polymetallic nodules, massive sulphide deposits around vents and mineral crusts on seamounts. Many of these materials are largely still not reused or recycled, and while the growing demand for electronic devices is used as an argument for seabed mining, only 19% are currently recycled in Europe. As such, deep sea mining is very much at odds with the 21st century needs for a transition to a resource-efficient circular economy based on renewable resources. With the mining industry at most stretching over some decades, the impacts risk to be irreversible or felt for thousands of years.

The potential consequences and hazards of industrial mining activities for the extremely fragile marine environment of the deep sea cannot be estimated at all. In contrast to what has been believed so far, a wide variety of species and unique marine communities which have grown over millennia exist at these ocean depths, in particular on seamounts and around hydrothermal vents. Deep-sea habitats are characterised by slow growth and slow reproductive rates of associated species. Moreover, no ascertained knowledge exists so far about their ability to recover from anthropogenic disturbance. Just a tiny portion of the deep sea has ever been explored at all to date.

Due to the conditions prevailing in the deep sea<sup>3</sup>, the use of industrial mining equipment is linked to a large number of challenges and uncertainties. It cannot be foreseen so far what dangers such activities might pose to deep-sea habitats.

Exploration and any possible future mining of minerals at the bottom of the sea in international waters are administered by the United Nations' International Seabed Authority (ISA).

Also from a socio-economic point of view large uncertainties exist about the sectors sustainability. The employment impacts will be marginal, as deep-sea mining is a highly-technological and automatised industry which will result in limited job creation. Strengthening recycling on the other hand is a more labour-intensive one and would create many more long

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<sup>1</sup> Conventionally, the mineral resources of the deep sea are classified into three groups: (i) **polymetallic nodules**, (ii) **cobalt-rich ferromanganese crusts**, (iii) **hydrothermal mineral deposit/polymetallic sulphides**.

<sup>2</sup> "International waters" is used here in a simplified way as a term for the seabed beyond the borders of the national exclusive economic zones and the borders of extended continental shelves as claimed by coastal states.

<sup>3</sup> In particular complete darkness, extremely high water pressures, low temperatures

term jobs. Small islands in the Pacific, which hope to see substantial revenues from deep-sea mining in their waters, may actually be faced with the negative impacts rather than the economic gains, with the sector risking to impact negatively on other sectors, such as fisheries and tourism.

Considering the risks for deep-sea ecosystems, there is no principle difference between mining in the high seas and in the EEZs. The risks for food security, artisanal fisheries and local economies are even considerably higher. Standards for the high seas area should therefore not be undermined by a rapid and non-regulated exploitation of mineral resources in the EEZs.

## Proposal to the G7:

### *Invest in sustainable alternatives, set regulations for deep-sea mining*

*The G7 countries should avoid becoming dependent on non-renewable resources from the deep sea by committing to a transition to a circular economy and investing fully in sustainable alternatives to deep-sea mining such as recycling, re-use, eco-design, sharing, repair and development of substitute materials.*

*The G7 countries commit themselves to developing a binding set of regulations in the context of the International Seabed Authority which ensures that no deep-sea mining activities are authorised unless sensitive deep-sea ecosystems will be protected comprehensively and efficiently against harmful effects of any future deep-sea mining.*

*The G7 commit themselves to respecting standards for the high seas also in the EEZs, promoting an expansion of these standards to the EEZs and taking responsibility for any action undertaken globally by companies owned by G7 capital or citizens. Also in the EEZs no deep-sea mining activities should be authorised unless these standards and the respective procedures are implemented.*

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