The seas cannot be saved on a budget of breadcrumbs

The marine arm of UNESCO's World Heritage Convention needs secure funding to realize its vast potential to protect the ocean, argues **Fanny Douvere**.

A global exemplar in protecting Earth's most iconic places is the 1972 World Heritage Convention of the United Nations Educational, Scientific and Cultural Organization (UNESCO)¹. The convention's founding years are credited with rescuing the ancient Egyptian temples of Abu Simbel from being lost under the Nile — an operation that required collaboration across more than 50 countries.

World-heritage recognition has since become a hallmark for sustainable protection of valuable sites, from Peru's Machu Picchu to Tanzania's Serengeti National Park. UNESCO's World Heritage List reflects the common heritage of humankind, a legacy to pass on to future generations. But its impact is felt mostly on land.

UNESCO also has a World Heritage Marine Programme, which I lead. It was created by UNESCO's World Heritage

Committee just over ten years ago to help secure effective conservation for marine sites on this list. Although the programme has a powerful brand that enables effective negotiation with government bodies and civil society, it is unfunded. Like a non-governmental organization (NGO), it must secure financial support from various sources. Finding these sources is difficult. Governments struggle to cover the costs of specialized programmes across the UN. Philanthropic organizations often seem more comfortable funding research institutions or NGOs. The World Heritage Marine Programme currently has just 3 professionals to cover 47 sites across 36 nations (see 'Ocean treasures').

World-heritage marine work can help governments to design feasible approaches to the threats that face some of the last wild places on Earth. Despite UNESCO's established ability to influence governments, and

to formulate and implement effective change for sustainable management, philanthropic contributions are hard to come by. With the oceans facing existential threats from pollution, climate change and overfishing, it is time to invest in one of the best tools available for conservation.

TRACK RECORD

Our programme can deliver far-reaching impacts where others cannot.

In 2011, the Australian government considered the protection of the Great Barrier Reef adequate even as scientists increasingly warned that the reef was in poor condition and getting worse^{2,3}. Despite the iconic status of the reef, and it having been a prime example of marine-protected-area management for 40 years, the site had suffered from decades of incremental decisions that threatened 'death by a thousand cuts'. More than two-thirds of

Australia's Great Barrier Reef is a UNESCO World Heritage Marine Site.

XI CATLIN SEAVIEW SURVEY

all coastal-development proposals near the reef submitted between 1999 and 2011 had been approved. Previous government financial commitments to halt and reverse the declines in water quality — declines largely responsible for the loss of coral systems closest to the coast — came up for revision in 2013 but renewal was uncertain. In 2012, the World Heritage Committee issued its first warning that it would list the site as 'world heritage in danger' unless it saw proof of substantial progress by the following year.

This opened the way for the UNESCO World Heritage Centre and its scientific advisory body, the International Union for Conservation of Nature, to embark on extensive negotiations with the Australian government, eventually changing the government's approach entirely. It reversed its original plan to dump 3 million cubic metres of dredged material into the Great Barrier Reef. Indeed, in 2015, it banned the dumping of dredged material throughout the world-heritage site — an area larger than Italy. Australia's government committed more than Aus\$200 million (US\$145 million) to improve water quality and set an ambitious aim to reduce pollution runoff by 80% by 2025. Proposed port-development areas have been restricted from 11 to 4 major ones, and future coastal development must align with a strategic plan aimed at improving the

health of the reef between now and 2050.

In his address to the World Heritage Committee last July, Australia's environment minister, Greg Hunt, said that UNESCO advice had allowed Australia "to do in 18 months what otherwise would have taken decades".

Something similar happened in the Belize Barrier Reef, the world's second largest coral-reef system. This site was placed on the list of world heritage in danger in 2009 because of the destruction of mangrove forests for coastal development and ongoing threats of offshore oil exploration. We began intensive talks with the government and stakeholders in early 2015, which led to a road map to reverse the endangered status. Last December, following years of deadlock, the Belizean government announced a permanent ban on all oil exploration in the site; in February, it approved an ambitious coastal-management plan. These are concrete steps that can lead to a brighter future for this unique array of reef types, and the nearly 200,000 Belizeans who depend on it for their livelihoods.

These are just tasters of the sustainable change that a properly funded World Heritage Marine Programme could bring. Since the first true marine site was inscribed on the UNESCO World Heritage List in 1982, our scope has grown into a global collection of sites that stretch from the tropics to the Arctic. The list includes the breeding grounds of the world's last healthy population of grey whales (*Eschrichtius robustus*), in Mexico; the highest density of ancestral polar-bear dens, in Russia; and the home of one of the world's most ancient fish, the coelacanth, in South Africa, and that of the inimitable marine iguanas (*Amblyrhynchus cristatus*), in the Galapagos Islands.

EFFECTIVE MANAGEMENT

Most of these places host a range of activities aimed at conservation and at generating income. Tension between opposing concerns is inevitable, and the most durable solutions emerge when diverse viewpoints of activists, scientists and government officials are effectively mediated. Our programme is uniquely positioned to take on this role.

In its first few years, the World Heritage Marine Programme had limited capacity and mainly worked by supplying recommendations and basic guidance to a handful of sites. But better science, the uncertainties of climate change and increasing pressure to use ocean space have brought shifting information and demands. Effective management of the flagship marine protected areas required us to adopt a more flexible, hands-on approach. Now we coordinate technical support missions, bring site managers and external experts together to exchange ideas, and increasingly broker solutions with government leaders to secure the urgently needed protection of

irreplaceable marine ecosystems.

Our work in Belize and Australia shows that if we can dig into the nitty-gritty of problems collaboratively we can affect change. But without a regular income, the programme cannot support even the sites that most need focused attention. For every case like the Great Barrier Reef, there are other urgent ones that do not get support.

For example, for nearly a decade, the World Heritage Committee has recommended that the Panamanian government establish a comprehensive plan for sustainable fisheries in Coiba National Park. Overfishing in

"If we can dig into the nitty-gritty of problems collaboratively we can affect change."

this park, considered the jewel of Panama, has almost wiped out once-abundant hammerhead sharks and boosted the jellyfish population. We must take advantage of the possibility of

working with the Panamanian government to deliver sustainable fisheries and secure a healthy future for Coiba.

The same can be said for the Sundarbans in Bangladesh, part of the largest mangrove forest in the world, which is now threatened by coastal development. Another example is Banc d'Arguin National Park in Mauritania, where catch from fishing just outside the site's borders has increased more than 12-fold from 1994 to 2010. But with current funds, we simply cannot be everywhere.

OCEAN INVESTMENT

To address the challenges at Coiba and other sites that struggle with illegal or unsustainable pressures, the World Heritage Marine Programme needs to be recognized as an effective body worthy of investment. It must be able to plan for the long term and focus attention on the most urgent priorities.

The successes mentioned here were made possible largely as a result of the steady and mostly unconditional support that Swiss watchmaker Jaeger-LeCoultre has provided to the programme since 2008. This has allowed the programme to steer away from a short-term project-by-project approach, and instead concentrate on the type of input needed to achieve the ultimate measure of success: improved conservation of sites' treasured values that won their world-heritage recognition in the first place.

To expand efforts and coordinate our work so that it is efficient and impactful, we need a broad base of stable financial support.

We now stand at a moment of even greater opportunity to preserve the open ocean — waters not subject to any single country's jurisdiction. These expanses, known as the high seas, cover half our planet. They also need protection that few — if any — mechanisms provide. From 2010 to 2012, seven ►

Ocean treasures

UNESCO recognizes 47 exceptional world-heritage marine sites across 36 nations — from mangrove forests in Belize to polar-bear breeding grounds in the Arctic.

1 Marine iguana (*Amblyrhynchus cristatus*) in the Galapagos Islands.

3 Mangroves in the Belize Barrier Reef.

2 Green turtle (*Chelonia mydas*) in Aldabra Atoll.

4 Polar bears (*Ursus maritimus*) in the Wrangel Island Reserve system.

► marine protected areas were established, covering more than 285,000 square kilometres in the Atlantic Ocean under the auspices of OSPAR, a cooperative effort by 15 governments and the European Union to protect the northeast Atlantic. These are some of the first of very few protected areas in the high seas. But this is only a regional action. The UN, under the 1982 Convention on the Law of the Sea, has started negotiations for a possible new agreement to protect high-seas biodiversity on a global scale. This framework agreement is real progress, but as yet lacks practical procedures to nominate, oversee and protect sites.

Enforcing protection of the high seas is one of today's biggest challenges in ocean conservation. The world-heritage system is equipped to help get this protection in place. It has a 40-year history of identifying and overseeing the state of conservation of places of Outstanding Universal Value across 163 nations and has had ample successes. Such institutional experience is unparalleled in nature conservation, but its capacity to navigate such complexities and to preserve ecosystems is often overlooked.

In a February interview with *The New York Times*, biologist E. O. Wilson called for creating something equivalent to the UN world-heritage sites to protect the open ocean as priceless asset of humanity.

Our ability to engage constructively with government is starting to produce real, lasting results in conservation. It could be replicated in other marine sites to great effect. Strengthening the international oversight of flagship protected areas will amplify the work of scientists, local NGOs and related organizations. Their concerns become international causes that, through a tactical and skilled use of the World Heritage Convention, can lead to government action that benefits us all.

Being effective requires robust investment. The World Heritage Convention cannot change the world on a budget of breadcrumbs. Philanthropists seeking investments that make lasting changes should look beyond their conventional outlets of NGOs and research institutions and consider this potential. Ignoring world heritage is a lost chance for our oceans. ■

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The views expressed are those of the author and do not necessarily represent those of UNESCO.

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