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UNESCO Convention on the Protection of the Underwater Cultural Heritage

Contribution

to Part I of the Report of the UN Secretary-General on Developments and Issues relating to Ocean Affairs and the Law of the Sea (Effects of Climate Change on the Oceans)

Executive Summary

The most important means of addressing and evaluating the effect of climate change is to collect scientific data. In this respect, underwater cultural heritage can provide crucial evidence of how human populations have adapted to, or been affected by climate changes in the past. For more than 90% of the existence of humankind, the sea was about 40-130 meters lower than the sea level today and traces of the effects of this past sea level rise are abundant.

Fostering underwater archaeology and underwater cultural heritage research through the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage will provide more information on the effects of climate change and sea level raise on human life. Underwater cultural heritage sites can provide strong evidence of past climate change, but also serve as indicator sites for changing currents, erosion and changing environmental conditions.

This requires not only increased research on underwater cultural heritage sites in the framework of the UNESCO 2001 Convention, but also close cooperation among the various actors participating in research on the effects of climate change both past and present, including underwater archaeologists participating in the UNESCO Unitwin Network for Underwater Archaeology.

Full Text

Underwater Cultural Heritage as Evidence of Climate Change Impact

Underwater cultural heritage can provide vital evidence about how human populations have adapted to, or been affected by climate changes in the past. Indeed, it is a sobering reminder of the impact of climate change. For more than 90% of human existence, the sea was about 40-130 meters lower than current levels. A substantial amount of prehistoric and historic evidence of the life of our ancestors is now submerged. These remains constitute underwater heritage, and provide an extremely important source of information about the first human civilizations and human origins, as well as climate change and its impact. Today, as we face sea level changes again, this heritage can help us put our current challenges into a wider context (see the project www.splashcos.org).

The submerged prehistoric landscape beneath the North Sea, located on an area known as Doggerbank, is one such example. It shows that rising sea levels in the past have forced migration and adaptation by Mesolithic human

populations, and provides us with the only human stories from a culture lost to changing environmental conditions. Many other examples of the effects of climate changes can be found in other prehistoric submerged landscapes, sunken cities, and harbor and port structures in the Mediterranean, the Black Sea and the Persian Gulf, and there is much to be learned from underwater cultural heritage research. Several major research projects are ongoing.

UNESCO and the Secretariat of the 2001 Convention on the Protection of the Underwater Cultural Heritage standardizes and fosters international research on underwater cultural heritage. This research is also contributing to the understanding of climate change. The provisions of the Convention facilitate effective international cooperation in heritage protection, including in international waters. Fostering underwater archaeology and underwater cultural heritage research through the UNESCO 2001 Convention will provide more information on the effects of climate change and sea level rise on human life.

To further address the effects of climate change on our oceans, UNESCO calls on all stakeholders to:

- foster the research of underwater cultural heritage sites in the framework of the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage. Underwater cultural heritage sites can provide strong evidence of past climate change, but also serve as an indicator for changing currents, erosion, and changing environmental conditions.
- Facilitate close cooperation among the various actors participating in research on climate change both past and present, including underwater archaeologists participating in the UNESCO Unitwin Network for Underwater Archaeology.

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UNESCO 1972 Convention concerning the Protection of the World Cultural and Natural Heritage

Contribution

to Part I of the Report of the UN Secretary-General on Developments and Issues relating to Ocean Affairs and the Law of the Sea (Effects of Climate Change on the Oceans)

Executive Summary

The 1972 World Heritage Convention unites nations behind a shared commitment to preserving the world's outstanding natural and cultural heritage for the benefit of present and future generations. It recognizes that the protection of these exceptional places is the duty of the international community as a whole and it ensures that the preservation of these special sites becomes a shared responsibility.

As of 1 August 2016, the UNESCO World Heritage List includes 49 unique ocean ecosystems – distributed across 37 countries – recognized for their *Outstanding Universal Value* (OUV), including iconic places such as Australia's Great Barrier Reef, the Galapagos Islands in Ecuador and Tubbataha Reefs Natural Park in the Philippines[1]. Their disappearance would be an irreversible loss to humanity.

Climate change is becoming one of the biggest threats to the *Outstanding Universal Value* and integrity of sites on UNESCO's World Heritage List, as well as a threat to the communities and economies that rely on their resources. One of the most visible impacts of climate change is the widespread bleaching of coral reefs, which is affecting marine World Heritage sites around the world. Experts predict increases in both the severity and frequency of El Nino events to come. These sweeping changes of weather patterns and ocean currents can have devastating effects, as we have seen with recent widespread coral bleaching, and could potentially seriously damage whole swaths of exceptional ocean features that are part of the legacy of humanity and protected under the World Heritage Convention.

For coral reefs and many other World Heritage marine ecosystems, keeping climatic warming to the Paris Agreement's long-term goal of 1.5°C is essential. Since all sites inscribed on the UNESCO World Heritage List are subject to systematic monitoring and officially embedded evaluation cycles, the World Heritage Convention offers a tremendous opportunity to increase climate resilience and hold nations accountable.

Full Text

Climate change effects in World Heritage marine sites

[1] Full list of marine protected areas protected under the 1972 World Heritage Convention is available here : http://whc.unesco.org/en/marine-programme/

The threats facing marine sites on UNESCO's World Heritage List are becoming increasingly apparent. While some sites have so far been spared from devastating effects, serving as a refuge for species, most others are experiencing noticeable, rapid and alarming changes.

In 2016, an unprecedented number of World Heritage marine sites experienced coral bleaching events and coral loss. Others endured record temperatures, and scientific evidence suggests that this might be only the beginning. Extreme weather events will become more frequent and further reduce the chances for these global ocean icons to recover.

Warming waters affect the migration of fish and marine mammals. Growing scientific evidence shows that when fish find their waters too hot or too cold, they will migrate to other locations rather than adapt to new local conditions. Generally, marine life seeks cooler conditions at higher latitudes and deeper waters, and thus might relocate outside the current boundaries of World Heritage sites where they are no longer protected.

Global warming is threatening the very existence of some World Heritage sites, as rising temperatures contribute to sea-level rise and ocean acidification puts the entire food web at risk. Nearly all marine World Heritage sites include shelled organisms that are affected by ocean acidification, which millions of people in local communities depend upon for their livelihood.

Marine World Heritage: Uniquely positioned to spearhead change

While the overall implementation of the Paris Agreement depends on many partners and is beyond the scope of the 1972 World Heritage Convention, individual sites on UNESCO's World Heritage List are playing an important role in spearheading change. World Heritage sites can provide leadership toward better science for decision-making, mitigating impacts, and adapting to changes.

Marine World Heritage sites are uniquely positioned to be sentinels of change. They can be both our early warning systems (through increased observation) and serve as a catalyst where emerging science and best practices are tested and tangible strategies for addressing the challenges of climate change are developed.

The 1972 World Heritage Convention unites nations behind a shared commitment to preserve the world's outstanding heritage for the benefit of present and future generations. A central difference between marine protected areas (MPAs) and marine World Heritage sites is the international oversight that comes with monitoring, evaluation and reporting obligations for the latter. To ensure the characteristics that make up a site's World Heritage status will endure, all sites inscribed on the UNESCO World Heritage List are subject to systematic monitoring and evaluation cycles embedded in the official procedures of the 1972 World Heritage Convention. Along with the recognition and inscription of an area on the List, the State of Conservation process is key to the protection of MPAs that are globally unique. This monitoring and evaluation of all natural sites on UNESCO's World Heritage List is made in cooperation with the IUCN, which has an official advisory role formally recognized under the World Heritage Convention.

To further address the effects of climate change on our oceans, UNESCO calls on all stakeholders to:

- Promote UNESCO World Heritage marine sites as a global network of reference points, helping to document ocean change and allow for an understanding of the regional and local dynamics of a changing climate;
- Secure global cooperation for the implementation of the 2015 Climate Agreement and keep climatic warming to the Paris Agreement's long-term goal of 1.5°C;
- Drastically reduce environmental pressures such as illegal, unregulated and unsustainable fishing in marine protected areas on the UNESCO World Heritage List in order to boost resilience of fragile ecosystems in the face of climate change;
- Encourage States Parties to develop climate change adaptation plans and appropriate measures to increase resilience of marine protected areas on the UNESCO World Heritage List.