

FEATURE: Climate change and the world's oceans

5 June 2017 – The vital link between oceans and climate change is among the issues at the forefront of discussions at the United Nations Ocean Conference taking place in New York from 5 to 9 June.

SDG 14 is the only universally agreed road map for conserving and sustainably managing marine resources Peter Thomson, President of the UN General Assembly

The oceans, which cover three quarters of the Earth's surface, play a vital role in the global climate system, generating oxygen and absorbing carbon dioxide from the atmosphere. Changes to the climate, brought about by increasing levels of greenhouse gases in the atmosphere, will thus lead to changes in the oceans, including sea-level rise and ocean acidification, which will put marine ecosystems and coastal communities at risk.

World leaders acknowledged the importance of the oceans when they adopted the 17 Sustainable Development Goals ([SDGs](#)), the universal blueprint for ending poverty, protecting the planet and ensuring that all people enjoy peace and prosperity. SDG 14 sets out specific targets to be met in order to conserve and sustainably use the oceans, seas and marine resources for sustainable development.

"SDG 14 is the only universally agreed road map for conserving and sustainably managing marine resources. Its faithful implementation is therefore our best hope for remedying the ocean's woes," [said](#) Peter Thomson, President of the 71st session of the UN General Assembly.



Pounding early winter surf from massive 15 foot ocean swells. Photo: [Irin News](#)/ Mike Baird/Flickr

Rising ocean temperatures

Although the ocean is the single largest habitat on the planet and is inextricably linked to human survival, climate change and the impact of increasing carbon dioxide emissions on the oceans have been largely overshadowed in the climate change debate, according to Isabella Lövin, Deputy Prime Minister of Sweden, one of the co-chairs of the Ocean Conference.

The oceans – which produce half of the world's oxygen, regulate the earth's climate and temperature, provide food and water, and are home to hundreds of thousands of species – have been a staunch ally in curbing climate change.

More than 93 per cent of all the heat people have added to the planet since the 1950s has been absorbed by the oceans – but at a price, Ms. Lövin [stressed](#). Rising ocean temperatures and increased acidification are now becoming apparent in melting Arctic sea ice and coral bleaching. Immediate mitigation, protection, restoration and adaptation actions are needed.

Healthy oceans, stable climate

“Whether on the coast or in the high seas far away from all, safeguarding biodiverse marine sites is vital for ensuring the sustainable long-term use of precious natural resources,” says Irina Bokova, Director-General of the UN Educational, Scientific and Cultural Organization ([UNESCO](#)).



Fishermen in the Bay of Bengal, India. Photo: UN Photo/John Isaac

The importance of the ocean to global climate cannot be underestimated, according to UNESCO. It absorbs a significant portion of carbon and an overwhelming amount of excess heat. Still, warmer atmospheric temperatures and increasing concentrations of greenhouse gases exert an enormous pressure on the ocean’s ability to regulate the climate.

UNESCO’s Intergovernmental Oceanographic Commission (IOC) helps in developing ocean sciences, observations and capacity-building to monitor the ocean’s major role in the climate system and predict ocean changes.

Laying the ground for efficient climate adaptation and mitigation strategies, IOC focuses on the most damaging impacts, such as temperature increase, sea-level rise, storm variations and changes in marine biodiversity. Its scientifically-founded services help countries, particularly coastal and small island developing States, become more resilient to present and future climate impacts.

Impact of sea-level rise

The oceans are experiencing “major stress” from climate change, according to Deputy Secretary-General Amina J. Mohammed. “Globally, the sea level has risen by 20 centimetres since the start of the 20th century, due mostly to thermal expansion of the oceans and melting of glaciers and ice caps. Some regions are experiencing even greater sea level rise.

“General warming trends, massive episodes of coral bleaching, acidification and the sea level rise are affecting ecosystems in all regions, threatening fisheries, food chains and the oceans’ ability to act as efficient carbon sinks.



Rising sea levels pose a threat to low-lying atoll islands. Photo: OCHA/D.Parry

“Warmer temperatures are causing more extreme weather events, and a projected two-metre rise in sea levels by the end of the century would be catastrophic for coastal habitats and economies. Hundreds of millions of people are at risk,” she [warns](#).

Particularly at risk are the inhabitants of small island States, with hurricanes, cyclones and tsunamis becoming increasingly more common threats.

Ocean health and economic prosperity

“Trouble for the oceans means trouble for people. Human well-being and health, economic prosperity, and a stable climate depend on healthy oceans,” [says](#) Wu Hongbo, Under-Secretary-General for Economic and Social Affairs and Secretary-General of the Ocean Conference.

According to the UN Office for Disaster Risk Reduction ([UNISDR](#)), losses due to disasters from natural and man-made hazards including floods, storms and the impacts of climate change are mounting, costing governments over \$300 billion globally each year.

UNISDR recently aligned its Disaster Resilience Scorecard, which provides a set of overarching assessments on disaster resilience, with the Sendai Framework – boosting the number of cities and towns capable of reducing their disaster losses by 2020



On 24 February 2016, Makereta Nasiki, 13, sits in her room, showing damage caused by Tropical Cyclone Winston in the town of Ba on Viti Levu Island of Fiji. Photo: OCHA/ www.vladsokhin.com

Global warming and the Polar Region

The effects of worldwide greenhouse gas emissions, one of the leading causes of global warming, are felt most intensely in the Polar Region.

According to the World Meteorological Organization (WMO), both the Arctic and Antarctica are warming twice as fast as the rest of the world. Glaciers and ice shelves are melting and sea ice and snow coverage are shrinking.

Polar wildlife ecosystems and indigenous population are already feeling the impact of climate change as polar conditions impact weather across the globe.

“Because of teleconnections, the poles influence weather and climate conditions in lower latitudes where hundreds of millions of people live,” [warns](#) Petteri Taalas, WMO’s Secretary-General. “Warming Arctic air masses and declining sea ice are believed to affect ocean circulation and the jet stream, and are potentially linked to extreme phenomena such as cold spells, heat waves and droughts in the northern hemisphere.”

With relatively little data available on the Earth’s Polar Regions, the UN weatheragency kicked off of a two-year international effort to close gaps in

polar forecasting capacity and improve future environmental safety.

The [Year of Polar Prediction](#) was launched in May to close the gaps in polar forecasting capacity and improve predictions of weather, climate and ice conditions in the farthest reaches of the planet. The global campaign aims to minimize environmental risks and maximize opportunities associated with climate change in polar regions.

Social scientists will examine how polar forecasts can be factored into socio-economic decision making while stakeholders in transport, shipping and tourism will provide input on community needs.

Coral reefs under threat from climate change



“Oceans are continuing to warm, acidify and lose oxygen,” said IPCC chair Hoesung Lee. “Warm water coral reefs are already under pressure and 90 per cent would suffer significant risk from global warming of 1.5 degree Celsius.” Photo: UNEP/Jerker Tamelander



Above-normal ocean temperatures have contributed to coral bleaching and disruption of ecosystems, including in the Great Barrier Reef, which has seen up to 50 per cent of its coral die in certain parts. Photo: UNEP/Paul Marshall.



The UN backs the International Coral Reef Initiative – an informal partnership between nations and organizations to preserve coral reefs and their ecosystems by reducing pollution from plastic microbeads and sunscreen, and financing projects that help protect and restore coral reefs, mangroves and seagrasses. Photo: UNEP/Jerker Tamelander



Corals that have shown some resistance to rising temperatures are being grown on coral farms in Marine Protected Areas. Photo: Reef Explorer Fiji.

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Tropical coral reefs cover a mere 1 per cent of the ocean but are among the most bio-diverse systems on the planet, supporting one quarter of all marine species.

According to the UN Environment Programme ([UNEP](#)), coral reefs exist in over 100 nations, including more than 80 developing countries. They sustain human society through a range of ecosystem services, such as livelihoods and food security from fisheries; revenue from tourism; erosion prevention; and protection from extreme weather events through dissipation of wave energy.

They also help to lessen inundation and damage during storms.

Among the planet's natural ecosystems, mangroves, sea-grass beds and coral reefs return the highest value in terms of ecosystem services. A square kilometre of healthy, well-managed coral reef can yield a catch of over 15 tons of fish and other seafood every year. Some 850 million people live within 100 km of coral reefs, deriving some benefits –with at least 275 million depending directly on reefs for livelihoods and sustenance.

Climate change and water supply

According to the UN Development Programme ([UNDP](#)), the planet's freshwater and oceans are inextricably linked through the earth's water cycle. The agency notes that 97 per cent of the world's water is in the ocean and the ocean supplies almost all the water that falls on land as rain and snow. Of the small portion that is fresh water; about a third is in in the ground and a mere .3 per cent in accessible surface waters.

Climate change scenarios project that discrepancies between water supply and demand will heighten. The frequency and severity of floods and droughts will likely change many river basins worldwide – with droughts causing significant socio-economic and environmental consequences.

The UNEP estimates the cumulative economic impact of poor ocean management practices at minimally \$200 billion per year. In the absence of mitigation measures, climate change will increase the cost of damage to the ocean by an additional \$322 billion annually by 2050.



Local fishermen in Mozambique. Photo: Andrea Borgarello/ World Bank

“In a world where demands for freshwater are ever growing, and where limited water resources are increasingly stressed by over-abstraction, pollution and climate change, neglecting the opportunities arising from improved wastewater management is nothing less than unthinkable in the context of a circular economy,” according to the UN World Water Development Report 2017, *Wastewater: The Untapped Resource*

Weighing the linkages and significant socio-economic benefits of the earth's freshwater and marine systems, UNDP underscores the need to take adaptive, integrated, ecosystem-based approaches to manage freshwater and ocean resources.

As such, UNDP is assisting countries in equitably allocating water resources and implementing integrated management through adaptive water governance, which helps to reduce poverty and vulnerability, sustain and enhance livelihoods and protect environmental resources.

Oceans are part of the solution

Humanity owes much to the oceans in many aspects of life: providing

invaluable ecosystems, climate regulation and cultural support to the millions of people who live near the sea, according to José Graziano da Silva, Director-General of the Food and Agriculture Organization ([FAO](#)).



Water of the Congo River is used in the absence of wells. Photo: OCHA/J-L. Mbalivoto

As 3 billion people ultimately depend on marine and coastal biodiversity, all nations agree on the need to step up efforts to protect oceans and seas, especially in the era of climate change, when transformational interventions are becoming even more urgent and encompassing.

The oceans cover almost three quarters of the Earth's surface, storing one third of all the carbon emissions stemming from human activity. They are part of the solution, and they must be a key focus of global efforts to cope with and mitigate climate change, he [stresses](#).

"Oceans play a crucial role in the achievement of global food security, as well as human health and well-being," [says](#) Miguel de Serpa Soares, UN Legal Counsel and Special Adviser to the Presidents of the Ocean Conference on oceans and legal matters.

"They are the primary regulator of the global climate, function as an important sink for greenhouse gases, serve as the host for huge reservoirs of biodiversity and play a major role in producing the oxygen we breathe."

He adds that oceans, seas and marine resources are increasingly threatened by human activities, including increased CO2 emissions, climate change, marine pollution, unsustainable extraction of marine resources, and physical alterations and destruction of marine and coastal habitats.

[UN Ocean Conference opens with calls for united action to reverse human damage](#)

5 June 2017 – Opening a "game-changing" international conference on the health of the world's oceans and seas, top United Nations officials today urged coordinated global action to protect the planet.

Speaking in the UN General Assembly Hall, [Secretary-General](#) António Guterres cautioned Governments that unless they overcome short-term territorial and resource interests, the state of the oceans will continue to deteriorate.

“Improving the health of our oceans is a [test for multilateralism](#), and we cannot afford to fail,” the Secretary-General said addressing his first major UN conference since taking on his post.

“We must jointly address the problems of governance that have held us back,” he said, calling for a new strategic vision of how to govern the oceans and marine resources.

One of the main challenges, he said, is to end “the artificial dichotomy” between jobs and healthy oceans: “The conservation and sustainable use of marine resources are two sides of the same coin.”

He called for strong political leadership and new partnerships, based on the existing legal framework, and concrete steps, such as expanding marine protected areas and reducing plastic waste pollution.

Among other specific actions, Mr. Guterres urged Governments to allocate the promised funding for the 2030 Sustainable Development Agenda, the [Paris Agreement](#) on climate change and the [Addis Ababa Action Agenda](#), as well as improving data collection and sharing their best experiences.

These works are supported by the UN, he added, which among its work, is building partnerships with Governments, the private sector, civil society and others, and working with international financial institutions to allocate resources.

Also addressing the thousands of participants – including heads of State and Government, civil society representatives, business people, as well as actors, and ocean and marine life advocates – was the President of the General Assembly, Peter Thomson.

“The time has come for us to [correct our wrongful ways](#),” said Mr. Thomson, who hails from the island of Fiji, which is co-hosting the event alongside Sweden.

He spoke out against “inexcusable” actions, such as dumping the equivalent of one large garbage truck of plastic into the oceans every minute of every day, driving fish stocks to the points of collapse, and destroying marine life through acidification and deoxygenation.

“We are here on behalf of humanity to restore sustainability, balance and respect to our relationship with our primal mother, the source of life, the Ocean,” he noted.

Also speaking at the opening was Wu Hongo, the Secretary-General of The Ocean Conference, who pointed out that without oceans and seas, there would be [no life on the planet](#).

Mr. Wu, who is also the Under-Secretary-General for Economic and Social Affairs, noted that everyone must work together – not in silos – to achieve the goals of the Conference.

[The Ocean Conference](#), which runs through Friday, focuses on the targets

outlined in the [2030 Agenda](#) for Sustainable Development, adopted by Governments in 2015. In particular among the Sustainable Development Goals (SDGs), [Goal 14](#) highlights the need to conserve and sustainably use oceans, seas and marine resources to benefit present and future generations.

The main areas of work at The Ocean Conference will be a political call to action, a segment on partnership dialogues and [voluntary commitments](#). Hundreds of commitments were already registered by the time the conference opened earlier today.

Additional discussions with high-level officials, actors and activists will take place in the [SDG Media Zone](#).

[Iraq: Lives of 100,000 children 'on the line' as fighting continues in west Mosul](#)

5 June 2017 – Some 100,000 children remain in extremely dangerous conditions in western sections of Iraq's Mosul city as fighting between Government and terrorist forces continues, the United Nations children's agency today reported, warning that "children's lives are on the line."

"We are receiving alarming reports of civilians including several children being killed in west Mosul," [said](#) Peter Hawkins, the UN Children's Fund ([UNICEF](#)) Representative in Iraq, in a statement, noting that boys and girls are being killed, injured and used as human shields as the fighting intensifies by the hour.

An estimated 100,000 girls and boys remain in extremely dangerous conditions in the Old City and other areas of west Mosul, he said, calling on all parties in west Mosul to keep children out of harm's way at all times.

"Attacks on civilians and civilian infrastructure including hospitals, clinics, schools, homes and water systems should stop immediately," Mr. Hawkins said.

[Get outside, connect with the planet](#)

that sustains us, urges UN on World Environment Day

5 June 2017 – With well documented physical and mental health benefits of being in nature, the theme of this year’s World Environment Day ‘Connecting People to Nature’ the United Nations is highlighting the [vast benefits](#), from food security and improved health to water supply and climatic stability, that clean environments provide to humanity.

‘This is our environment. It is the keystone of a sustainable future. Without a healthy environment we cannot end poverty or build prosperity,’ said [Secretary-General](#) António Guterres in a [video message](#) on the Day, commemorated annually on 5 June.

Pointing to land, water oceans, forests, and ‘the air that we breathe,’ the UN chief reaffirmed that everyone has a role to play ‘in protecting our only home,’ including using less plastics, driving less, wasting less food and ‘teaching each other to care.’

‘On World Environment Day and every day let us reconnect with nature. Let us cherish the planet that protects us,’ concluded Mr. Guterres.

[World Environment Day](#) is the largest global day for positive environmental action. This year, the main celebrations are hosted by Canada. The UN Environment Programme ([UNEP](#)) says thousands of people across six continents are joining massive clean-ups of beaches and parks, countries are protecting 1,600 square kilometres of land, and over 30 iconic landmarks, including the Empire State Building, ‘Christ the Redeemer’ statue in Rio, and Niagara Falls, will light up in green.

The Day’s theme encourages people to simply ‘get back outdoors’

The 2017 edition of the Day coincides with the opening at UN Headquarters in New York of [The Ocean Conference](#), the first-ever high-level global meeting on conservation and sustainable use of the oceans, seas and marine resources for sustainable development. The Governments of Fiji and Sweden have the co-hosting responsibilities of the Conference.

The [2030 Agenda](#) resolves ‘to ensure the lasting protection of the planet and its natural resources,’ in particular, the Agenda’s associated Sustainable Development Goals ([SDGs](#)) 14 and 15 focus on respectively [conserving and sustainably using the oceans, seas and marine resources](#) and on [protecting, restoring and promoting sustainable use of land ecosystems](#).

‘Our entire modern life, with its skyscrapers and smartphones, [stands on a delicate foundation of natural systems](#),’ said UN Environment chief Erik Solheim in remarks on the Day. ‘Today, these foundations are shaking, undermined by man-made climate change, deforestation and

extinctions. No amount of advanced technology will save us if we destroy and pollute our natural lifeblood.”

Billions of rural people around the world spend every working day 'connected to nature' and appreciate their dependence on natural water supplies and how nature support their livelihoods in the form of fertile soil. They are among the first to suffer when ecosystems are threatened, whether by pollution, climate change or over-exploitation.

VIDEO: The UN Environment Programme (UNEP) calls on everyone this World Environment Day to show how they're #WithNature. Featuring UNEP Goodwill Ambassadors Gisele Bündchen and Don Cheadle.

'Connect with nature' by visiting an iconic UNECSO-designated site

In line with the theme of the Day, 'Connecting People with Nature,' Irina Bokova, the Director-General of the UN Educational, Scientific and Cultural Organization, [invited](#) everyone to take time out from busy lives and to visit one of UNESCO's sites – including [Biosphere Reserves](#), many [Global Geoparks](#) and iconic [World Heritage sites](#) – often overlying key strategic surface or groundwater resources and which bring together more than 2,000 exceptional sites around the world.

“All of them employ local people and have their doors wide open to the public, because we know now this is the surest path to more inclusive and sustainable development, respectful of the boundaries of the planet,” she said, calling women and men everywhere “to connect with the nature around them that gives beauty, meaning and harmony to the lives we lead.”

[UN chief strongly condemns terrorist attacks in London](#)

4 June 2017 – United Nations [Secretary-General](#) António Guterres has strongly condemned last night's terrorist attacks in London and solidarity with the people and Government of the United Kingdom in the combat against terrorism and violent extremism.

“The Secretary-General expresses his solidarity with the people and the Government of the United Kingdom as they fight terrorism and violent extremism,” said a [statement](#) issued by a UN spokesperson, which denounced the deadly incidents as “unjustifiable violence” and also expressed Mr. Guterres' condolences to the families of the victims and wishes the injured a swift recovery.

According to media reports, seven people were killed and dozens more injured when a van sped across London Bridge last night, ramming numerous pedestrians. After the van came to a halt, the attackers reportedly stabbed several people in the capital's Borough Market, a crowded weekend gathering spot. The three assailants were reportedly shot by the police.

This is the third deadly incident in the UK that authorities have attributed to terrorists in as many months, following a [deadly attack](#) near the Houses of Parliament in March, and nearly two weeks after a suicide bombing outside an Ariana Grande [concert](#) in Manchester.

“This is a struggle in many parts of the globe that compels the international community to join up efforts to bring to justice those who use such inhuman tactics while also protecting and promoting the fundamental values, rights and principles that terrorists so fervently seek to undermine,” the statement concluded.