



Co-Chairs' Statement emanating from **Oceans Day at Durban**

"Climate, Oceans, People"

**at the 17th Conference of the Parties to the
United Nations Framework Convention on Climate Change
December 3, 2010, Durban, South Africa**

International decision makers must understand the enormous role the oceans play in sustaining life on Earth. This role is increasingly under threat from human activity, with oceans and coastal areas under growing stress from climate change and ocean acidification. People that depend on the oceans and coasts for food, protection and livelihoods are vulnerable and especially at risk.

We call for:

- Urgent action to reduce greenhouse gas emissions, especially CO₂, and
- Efforts from international to local scales in adaptation, mitigation, research, capacity building and public outreach.

BACKGROUND

This Co-Chairs' Statement emanating from Oceans Day at Durban addresses the need for urgent and concerted actions emphasizing the central role of the oceans in climate and addressing the urgent issues faced by coastal and island communities living at the frontlines of climate change, including sea level rise, coastal erosion, extreme weather events, and ocean acidification, among others.

Oceans Day at Durban at the 17th Conference of the Parties to the UN Framework Convention on Climate Change comes at a critical time in the lead-up to the UN Conference on Sustainable Development (the Rio+20 Conference to be held in Rio de Janeiro, Brazil on June 20-22, 2012), providing an important opportunity to address ocean and climate issues in the context of sustainable development goals.

OCEANS AND CLIMATE CHANGE

Oceans cover more than 70% of the Earth's surface and play a key role in many critical global processes. Oceans generate oxygen, absorb carbon dioxide and regulate climate and temperature and are essential to the health of the planet. Indeed, it can be said that oceans are the life support system of the planet. Oceans directly support the livelihoods of hundreds of

millions around the globe and ocean resources provide billions of people with a significant portion of their animal protein and essential minerals.

Marine and coastal biodiversity provides many valuable services and products to people, including cancer-curing medicines, genetic resources, nutrient cycling, and cultural value, among others. Healthy oceans are inextricably linked to the long-term management, development, and well-being of coastal populations in more than 183 coastal and island nations.

However, the role of oceans in climate regulation and their ability to continue to provide critical services are compromised by the impacts of climate change. As well, climate change is predicted to have significant adverse impacts on coastal and island communities and marine ecosystems, many of which are already being seen, including:

Sea-Level Rise

- There is now compelling scientific evidence that sea level rise will be at least 1 meter by 2100 (higher than the 2007 IPCC estimates), with the possibility of even higher levels of sea level rise likely. Recent scientific evidence indicates sea level rise in some Indian Ocean islands is in the order of 10 mm per year.

Oceans Day at Durban Organizers



Extreme Weather Events

- The 2007 report of the IPCC, confirmed by the 2011 IPCC special report on climate extremes, concludes that it is very likely that an increase in ocean temperatures will result in increased frequency and intensity of extreme weather events, such as hurricanes. This can cause damage in excess of 20% of GDP in many small island developing States (SIDS). When combined with sea-level rise, extreme events can lead to severe impacts on coastal infrastructure, the spread of diseases, and the displacement of and loss of life among coastal populations.

Ocean Acidification, Ocean Warming, and Deoxygenation

- The oceans have increased in acidity by 30 per cent since the industrial revolution and are predicted to become even more acidic, undergoing a change in ocean chemistry not seen for 65 million years--this will rapidly increase as CO₂ emissions increase. Ocean acidification significantly hinders the ability of shell-forming organisms to construct their shells, grow, and reproduce. It can impact marine species distribution, notably fisheries, with negative implications for food security. Acidification affects corals, shellfish, and more than 50% of the phytoplankton forming the foundation of marine food webs.
- Oceans have warmed by an average of 0.7°C in recent decades, with warming of 3°C predicted by the end of this century. Warming reduces nutrients near the ocean surface and reduces oxygen available to marine organisms. These rapid changes in ocean chemistry are caused by the increase in greenhouse gas emissions, especially carbon dioxide.

Impacts on Fisheries and Aquaculture

- Climate change will affect the distribution and productivity of fish species, many of which are highly sensitive to changes in ocean conditions, and will alter marine habitats and food webs; threatening the ability of fisheries and aquaculture systems to contribute to economies, food and nutrition security and livelihoods at the local, national and global levels. In addition, fisheries- and aquaculture-dependent economies, coastal communities and fisherfolk and fishfarmers are expected to experience the effects of climate change in a variety of ways including: displacement and migration of human populations; effects on coastal communities and infrastructure due to sea level rise; and increased losses due to changes in the frequency, distribution or intensity of tropical storms.

Impacts on Small Island Developing States (SIDS) and Developing Coastal Communities

- SIDS remain particularly at risk to climate change impacts due to their geographic isolation, small size, and often low adaptive capacity. They will suffer disproportionately from climate change impacts, as many life-sustaining ecosystems in coastal and island areas, such as coral reefs, are highly sensitive to climate change and may already be suffering irreversible damage. This has severe socioeconomic implications in developing coastal countries and SIDS, affecting water resources, biodiversity and fisheries, agriculture, energy access, health, tourism, and infrastructure. Sea-level rise threatens the very survival of many SIDS, as projections indicate some small islands could become completely inundated.

In summary, if left unaddressed, climate change will severely impact marine ecosystems and coastal communities in ways that may be difficult or impossible to adapt. It is imperative that climate change impacts on oceans and coasts be considered both within and outside the UNFCCC, both for our planetary survival and human well-being.

NEEDED RESPONSES

These impacts can be mitigated through concerted and urgent actions, supported by an improved understanding and recognition of the role of oceans and coasts in the climate system and implemented through adaptation and mitigation defined at appropriate scales.

Adaptation

Ecosystem approaches to adaptation promoting, for example, the preservation and restoration of coastal ecosystems and natural buffers, must be promoted and implemented, especially through established integrated coastal and ocean management (ICM) institutions, to increase the resilience of coastal and marine systems and mitigate adverse impacts of climate change on coastal and island populations. However, many areas lack the necessary capacity to implement adequate adaptation measures and disaster risk management, outlining the urgent need for technical and financial adaptation assistance for the world's coastal areas. Moreover, decisions on appropriate adaptation measures need to be based on adequate observations and monitoring, and pragmatic policy options for adaptive management that fully recognize and incorporate national and regional priorities and Millennium Development Goals such as food and nutrition security, education, health, and sustainable livelihoods.

As well, current adaptation cost estimates for coastal areas and small island states are woefully inadequate, as are the adaptation resources currently available. With over half of the world's

population living in coastal regions and likely to experience the most pronounced effects of climate change, at least half of the funds made available for adaptation should target coastal and island populations. Similarly, attention and support should be focused on addressing the humanitarian issues associated with the displacement of populations in developing coastal countries and SIDS as a result of climate change.

Mitigation

In addition to stringent emissions reductions, the role of oceans and coasts in mitigating climate change must also be supported and strengthened. Oceans and coastal areas are a major sink for carbon (known as “Blue Carbon”), which is released when coastal ecosystems are destroyed, thereby becoming a significant source of greenhouse gas emissions. There is a clear need for additional research on quantifying carbon stored and released by marine and coastal ecosystems, as discussed by the UNFCCC Subsidiary Body for Scientific and Technical Advice in Durban. As well, measures are needed to protect and restore marine ecosystems as major carbon sinks and move towards incorporating Blue Carbon into emissions reduction and climate mitigation strategies and activities, including carbon markets.

The ocean is also being looked to as a viable source of renewable energy, such as offshore wind power, aquatic biofuels and hydrokinetic energy (e.g. wave power, tidal power). Increased financial support and research as well as strong political leadership is needed to improve the commercial viability and competitiveness of various types of ocean-based renewable energy as an important alternative to non-renewable sources of energy that contribute to climate change.

Increasing energy efficiency in marine-based sectors, such as marine transport, fisheries and aquaculture, will also be a necessary component of global mitigation strategies.

Science Supporting Policy-relevant Information

Research and observations are essential to improving our knowledge and understanding of the climate-related stressors on the oceans and coasts (e.g., sea level rise, warming, acidification), and how this will impact the provisioning of ecosystem services on which human communities rely. Science capacity needs to be rapidly expanded globally, particularly in vulnerable developing countries. In order to better understand the impacts on ecosystems and coastal communities, research will increasingly need to follow a multi-disciplinary approach across the physical, chemical, biological, and socio-economic sciences, examining all human impacts on the ocean, and will require strong and effective global coordination for research, and a Global Ocean Observing System that is fit for purpose.

These studies need to be policy-relevant, with a meaningful exchange of knowledge between science and decision-makers. A strong scientific knowledge base relevant for policy and decision-making is fundamental to avoiding expensive mistakes.

Capacity Development and Public Outreach

Predicting and adapting to the impacts of climate change on oceans and coastal communities requires local and national capacity, including financial, technical, and technological capacity. The global community must mobilize resources to support the adaptive capacity of coastal and island communities to mitigate the adverse impacts of climate change. Improved access to, and sharing of, scientific information and best practices is also of central importance.

It is essential, as well, to support public outreach and education programs, including for youth (see Annex 1), to improve awareness and encourage people to reflect on sustainable modes of living; to improve awareness of the risks posed to coastal communities; and to catalyze support for mitigation and adaptation responses.

Community Engagement

Coastal and island communities, which are most vulnerable to the impacts of climate change, need to be involved directly in the monitoring, decision-making and adaptive management activities through a process of awareness-raising, the capture of indigenous knowledge and through a closer and more sustained involvement in national management decisions that react effectively and pragmatically to climate variability and change and to predictable alterations in ecosystem services.

OCEANS DAY AT DURBAN

The Oceans Day in Durban, which was co-organized by the Global Ocean Forum, the Department of Environmental Affairs of the Government of South Africa, the Global Environment Facility (GEF), the UN Development Programme (UNDP), the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), the University of Delaware, the New Partnership for Africa's Development (NEPAD), the Global Partnership on Climate, Fisheries and Aquaculture (PaCFA), the Agulhas and Somali Current Large Marine Ecosystems (AS-CLME) Project, the Benguela Current Commission (BCC), the Guinea Current Large Marine Ecosystem (GCLME) Project, the Canary Current Large Marine Ecosystem (CCLME) Project, the Food and Agriculture Organization of the United Nations (FAO), the World Meteorological Organization (WMO), Plymouth Marine Laboratory, the World Ocean Network, the Organizing Committee for EXPO 2012 Yeosu Korea, the City of Yeosu, Republic of Korea, and the Korea Ocean Research and Development Institute, and held on the margins of the 17th Conference of the Parties to the UN Framework Convention

on Climate Change (UNFCCC COP 17), gathered over 170 leaders from all sectors of the global oceans community to highlight the direct link between climate change, the health of the oceans, and human well-being, as well as the need for sufficient funding to support bold mitigation and adaptation measures that will minimize climate change impacts on coastal communities and ocean ecosystems and resources.

This was the third Oceans Day to be held in the context of a UNFCCC COP, following Oceans Day at Copenhagen, held at UNFCCC COP 15 (<http://www.oceansday.org/c-index.html>), and Oceans Day at Cancun, held at UNFCCC COP 16 (<http://www.oceansday.org/>).

UNFCCC COP 17 comes at an important time in the lead-up to the UN Conference on Sustainable Development (Rio+20 Conference), providing an important opportunity to outline new targets, goals, and timetables for oceans and coastal issues, including in the context of climate change.

PRIORITY ACTIONS AT UNFCCC COP 17 AND BEYOND

International decision makers must understand the enormous role the ocean plays in sustaining life on Earth. This role is increasingly under threat from human activity, with ocean and coastal regions under growing stress from climate change and ocean acidification. People that depend on the ocean and coasts for food, protection and livelihoods are vulnerable and especially at risk.

There is a clear need for:

- Urgent action to reduce greenhouse gas emissions, especially CO₂, and
- Efforts from international to local scales in adaptation, mitigation, research, capacity building and public outreach.

The global oceans community calls attention to the need to develop an integrated strategy for oceans and coasts within and beyond the UNFCCC.

The following actions are recommended:

1. Enact stringent and immediate reductions in CO₂ emissions

- Adopt stringent reductions in greenhouse gas emissions, within a short timeframe, to avoid disastrous consequences on oceans and coastal communities around the world and to ensure the continuing functioning of the oceans in sustaining life on Earth; and
- Centrally incorporate issues related to oceans and climate into the discussions of the UNFCCC on emissions reductions.

2. Deepen understanding and policy approaches to support “Blue Carbon”

- Natural carbon sinks in coastal areas (e.g., mangroves, sea-grass beds, kelp forests, tidal marshes), which have a greater capacity (per unit of area) than terrestrial carbon sinks in achieving long-term carbon sequestration in sediments, have not yet been fully considered in the UNFCCC context;
- Support additional research on quantifying the amounts of carbon stored and released by various marine and coastal ecosystems;
- Reduce the destruction and degradation of marine and coastal ecosystems to preserve their carbon storage capabilities; and
- Include coastal Blue Carbon activities such as the conservation, restoration and sustainable use of coastal ecosystems such as mangroves, tidal salt marshes and sea grasses into relevant UNFCCC mechanisms and activities such as REDD+ and nationally appropriate mitigation actions (NAMAs).

3. Accelerate progress on mitigation approaches using oceans and coasts

- Focus further resources into the development of ocean-based renewable energy (such as offshore wind power, wave energy, tidal power, and aquatic biofuels); and accelerate efforts to implement these approaches through marine spatial planning and enhanced regulatory frameworks;
- Accelerate efforts by the IMO and others to reduce emissions from ships and fishing vessels;
- Consider, and, if appropriate, develop regulatory systems for carbon capture and storage via injection in deep seabed geological formations; and
- Discourage other geo-engineering approaches, such as iron fertilization, CO₂ injection in water column due to unknown and potentially adverse ecological impacts.

4. Undertake climate change adaptation in vulnerable coastal areas

- Encourage and implement ecosystem approaches to adaptation, including marine protected areas, through integrated coastal and ocean management institutions at national, regional, and local levels to build the preparedness, resilience, and adaptive capacities of coastal communities;
- Provide sufficient funding to support adaptation for coastal and island communities that are at the frontline of climate change in 183 coastal countries, considering the creation of a special Coastal Adaptation Fund or directing a significant

portion of the current Adaptation Funds to Coastal issues; and

- Develop and support policy measures to address the issues associated with the displacement of coastal populations as a result of climate change.

5. Build the capacity of coastal and island areas to predict, understand, and respond to the risks posed by climate change

- Provide technical assistance to SIDS and developing countries to build institutional capacity to implement adaptation measures, early warning systems, and disaster risk reduction;
- Improve awareness and understanding among policymakers of the importance of oceans and climate issues and the need to take bold policy measures to avoid disastrous impacts on the world's coastal and island communities;
- Establish the scientific capacity in all countries for marine environment and climate variability assessment, monitoring, and prediction; and
- Expand public outreach and education efforts to improve awareness of the risks posed to coastal communities and to catalyze support for mitigation and adaptation responses.

6. Work with coastal countries to raise awareness about the implications of climate change impacts on ocean and coastal areas

- Call for recognition in the UNFCCC negotiating text of the important role played by oceans in climate--generating oxygen, absorbing carbon dioxide, and regulating climate and temperature;
- Mobilize broad-based support for the oceans and climate agenda within the UNFCCC process and in the Rio+20 process leading up to the UN Conference on Sustainable Development in June 2012 in Brazil;
- Work towards the creation of an integrated oceans and climate strategy within and beyond the UNFCCC;
- Support the possible creation of a caucus of coastal countries within the UNFCCC; and
- Request the UNFCCC Secretariat to designate a focal point on oceans.

Furthermore, the African Large Marine Ecosystem (LME) Caucus expresses some specific concerns relating to the significant and impending impacts on SIDS and developing coastal states involved in the African LMEs, which have been captured in Annex 2.

Finally, the network of African fisheries and aquaculture proposed the Durban Declaration on Climate Change and African Fisheries, presented in Annex 3, which draws attention to the vulnerability of the sector to climate change and further calls on governments to incorporate fisheries and aquaculture in African national and regional adaptation plans, as well as to mainstream climate change in fisheries policies, development and management programmes through highlighting the role of fisheries and aquaculture in supporting food security in Africa, increasing resilience of the aquatic systems, increasing scientific knowledge and pursuing a people-centered and gender-sensitive approach to climate change adaptation in fisheries that incorporates and supports local adaptation strategies and indigenous knowledge.

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On behalf of Oceans Day at Durban Co-Chairs:

Deputy Minister Mrs. Rejoice Mabudafhasi, Ministry of Water and Environmental Affairs, South Africa, Dr. Wendy Watson-Wright, Executive Secretary, Intergovernmental Oceanographic Commission of UNESCO, and Dr. Biliانا Cicin-Sain, President Global Ocean Forum. This Statement is the responsibility of the Co-Chairs of the Oceans Day at Durban.

Annex 1: SEA Pledge Resolution to the Global Ocean Forum

We, the children of the last generation that has the time to reverse climate change trends and sustain our beautiful seas, together with many others around the world who support the SEA Pledge crusade¹, petition the Global Ocean Forum to take action to sustain the seas and their life support processes.

We ask the Global Ocean Forum to call upon the United Nations to declare an International Year of Oceans and Coasts.

We urge the members of the Global Ocean Forum, the World Ocean Network, all of the distinguished participants of Oceans Day at Durban and all governments assembled at COP 17, especially the government of South Africa, to support the SEA pledge with a view to assisting impoverished coastal communities, particularly those in Africa.

Annex 2: Contribution by the African Large Marine Ecosystem (LME) Caucus to the Statement on Oceans Day at Durban

Recognizing the extreme vulnerability of the African countries to the rapid impact of climate change on ecosystem services and consequent community livelihoods, food security, clean water sources, etc. and further recognizing the intimate relationship between oceans and climate and the feedback effects of changes between one and the other.

Drawing attention to the urgent need for cooperative partnerships that can successfully sustain long-term, comprehensive monitoring and observations in the African LMEs related to ecosystem variability and the changes that are happening as a result of climate variability and extremes; these monitoring programmes need to embrace socioeconomic implications of an altering environment in terms of climate change and ecosystem services.

Noting that, for the results and outputs of these monitoring and observation programmes to be of value, there needs to be an evolution of mechanisms that can translate scientific results into reliable predictions and peer-reviewed trends that can steer and drive appropriate adaptive management actions (supported by firm policy commitments) at the regional, national and community level throughout the African countries.

The African LME Caucus calls on all willing and able partners within the scientific, NGO, IGO, global funding agencies and private/commercial sectors and communities to work closely

with them to achieve these aims through long-term partnership commitments. Such alliances should aim to sustain ecosystem and climate change observations and monitoring and deliver the outputs as realistic and pragmatic management actions and policy reforms for the greater well-being of the countries and their vulnerable communities within the concepts of the ecosystem approach and the aims of the Millennium Development Goals.

Annex 3: Durban Declaration on Climate Change and African Fisheries

The New Partnership for African Development (NEPAD) Agency and the Global Partnership on Climate, Fisheries and Aquaculture (PaCFA) have developed, on behalf of African fisheries and aquaculture, the Durban Declaration on Climate Change and African Fisheries and Aquaculture in order to highlight the importance of the sector in Africa's response to the challenges posed by climate change.

- Recognizing that fisheries and aquaculture play a crucial role in supporting economic activity and contributing to food and nutrition security in many African states;
- Recognizing that African states are particularly vulnerable to climate change impacts on fisheries due to a high level of sensitivity to climate change and low levels of adaptive capacity;
- Recognizing that, in addition to climate change, African fisheries face numerous threats including overfishing, illegal fishing, pollution and habitat destruction;

We, the stakeholders:

- Recommend that fisheries and aquaculture are incorporated in African national adaptation plans, as well as climate adaptation strategies on the regional and continental level.
- Support the call made by the 2010 Conference of African Ministers of Fisheries and Aquaculture for member states, regional economic bodies (RECs) and regional fisheries bodies (RFBs) to mainstream climate change in disaster risk management, fisheries policies, development and management programmes.
- Urge African states, RECs and RFBs to support fisheries adaptation by accessing funding mechanisms aimed at climate change adaptation, disaster risk reduction, and supporting food security, and to ensure that fisheries holds a stronger position in national policies and development goals.

¹SEA Pledge is a Sustainable Seas Trust (SST) project. In this project, the SST as well as student forum representatives of the South East African Climate Consortium travelled to coastal towns of South Africa to encourage everyone to join the SEA Pledge crusade, with a focus on the UNFCCC COP 17 festivities on December 3, 2011. All around South Africa, yachts left harbours to exchange pledges at sea, divers exchanged pledges underwater and tried to break world records, surfers exchanged pledges in the waves, kite boarders in the air, and pledges were exchanged by swimmers, sun bathers, anglers, fisheries, shipping lines, schools, desalination plants, marine mining groups and the general public.

- Urge African policy makers to highlight the role of fisheries in supporting food and nutrition security in Africa, particularly in the context of climate change threats to food security on the continent.
- Recommend that African states, RECs and RFBs increase the resilience of African fisheries to climate change impacts by addressing overfishing, illegal fishing, pollution and habitat destruction, and by reducing vulnerability and improving livelihood opportunities.
- Recommend increased scientific and economic study of climate change impacts, mitigation and adaptation in African fisheries as well as enhanced knowledge sharing efforts between African states, RECs and RFBs.
- Recommend a people-centered and gender-sensitive approach to climate change adaptation in fisheries that incorporates and supports local adaptation strategies and indigenous knowledge.
- Recommend the need to implement the ecosystem approaches to fisheries and aquaculture as an adaptation strategy that aims to increase the resilience of vulnerable aquatic ecosystems and their dependent communities and that provides shoreline protection, food and nutrition security, maintenance of water quality, income and livelihoods services.