



Outcomes from the Rio-20 Conference

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IOC in the UN



UNESCO is the only body of the UN system having the “S” of Science

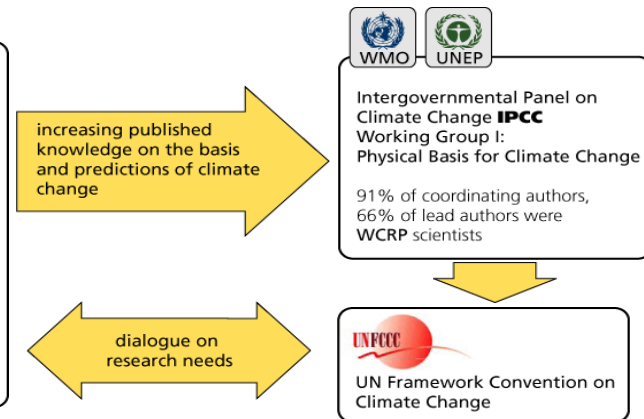
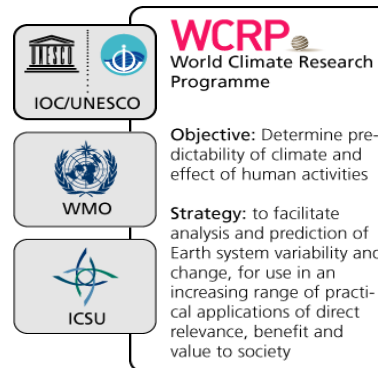
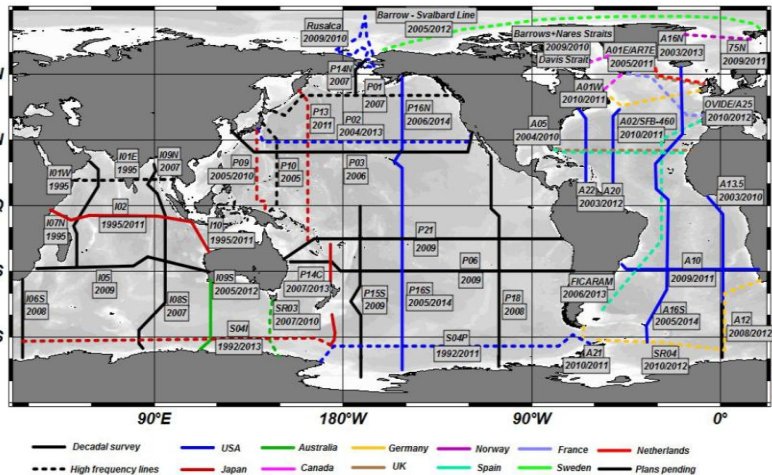
The Intergovernmental Oceanographic Commission (IOC) is the competent international organization for marine science (United Nations Convention on the Law of the Sea – UNCLOS)

IOC is the UN focal point for ocean observations, science, services and data exchange

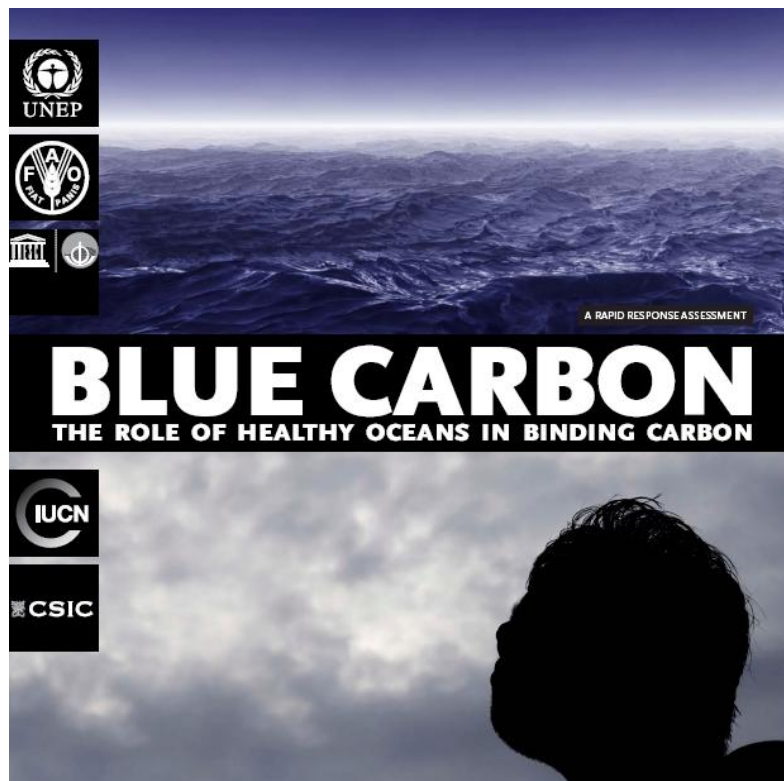
IOC in the UN Climate System

Climate Change

- World Climate Research Programme
- Ocean acidification
- Sea Level rise
- Int'l Ocean Carbon Coord'n Programme
- CC and ecosystems



IOC and Blue Carbon (2009-2011)



Nellemann, C., Corcoran, E., Duarte, C. M., Valdés, L., De Young, C., Fonseca, L., Grimsditch, G. (Eds). 2009. Blue Carbon. A Rapid Response Assessment. United Nations Environment Programme, GRID-Arendal,

Blue Carbon Sct meeting (IOC HQ, Feb 2011)

GEF project: Blue Forest (together with UNEP Conservation International, IUCN, Indonesian Ministry of Marine Affairs and Fisheries, University of Cape Town,



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September 19, 2011

Ms. Maryam Niamir-Fuller
GEF Executive Coordinator
United Nations Environment Programme
Nairobi 00100, Kenya

Dear Ms. Niamir-Fuller:

I am pleased to inform you that the following submission is cleared for inclusion in the work program and will be funded by the GEF Trust Fund:

Approval Stage:	PIF Clearance
GEFSEC (PMIS) ID:	4452
Agency(ies):	UNEP
Project Type:	Full Size Project
Country(ies):	Global
Name of Project:	Standardized methodologies for carbon accounting and ecosystem services valuation of Blue Forests
Indicative GEF Grant:	\$4,500,000
Indicative Agency Fee:	\$450,000

This clearance is subject to the comments made by the GEF Secretariat in the attached document. It is also based on the understanding that the project is in conformity with GEF focal areas strategies and in line with GEF policies and procedures.

It is our expectation that your Agency will submit a final project document in a timely manner, so that it is endorsed by the CEO no later than 18 months after council approval of the PIF.

Kindly inform the Secretariat as soon as possible if this timeline cannot be met so the Secretariat can either revise milestones or cancel the project, in consultation with the beneficiary country and your agency.

Attached is a copy of the review sheet for your records.

Sincerely,

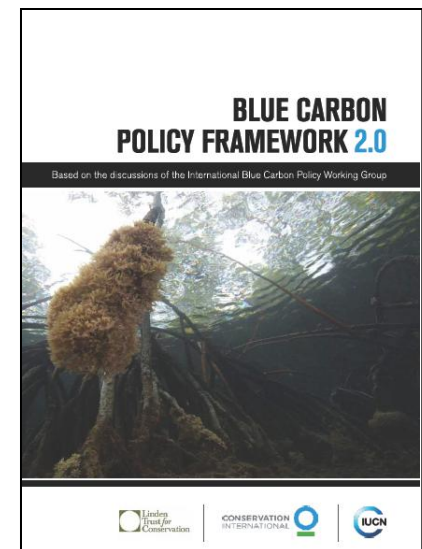


THE BLUE CARBON POLICY WORKING GROUP

The Blue Carbon Policy Framework has been developed based on the discussion of the International Blue Carbon Policy Working Group, convened by Conservation International (CI) and the International Union for Conservation of Nature (IUCN). The group consists of experts in coastal science, environmental policy and economics, and project implementation from within the climate change and marine communities.

THE BLUE CARBON INITIATIVE

The Blue Carbon Initiative is the first integrated program focused on mitigating climate change by conserving and restoring coastal marine ecosystems globally. The initiative is lead by Conservation International (CI), the International Union for Conservation of Nature (IUCN), and the Intergovernmental Oceanic Commission (IOC) of UNESCO, and works with partners from national governments, research institutions, NGOs, coastal communities, intergovernmental and international bodies and other relevant stakeholders. The International Blue Carbon Policy Working Group and the International Blue Carbon Scientific Working Group are coordinated through the Blue Carbon Initiative.



IOC BC activities in 2012 (before Rio)



Blueprint on Ocean and Coastal Sustainability

2nd meeting of the International Blue Carbon Policy Working Group, January 2012

Rio+20 preparatory Meeting in New York. Workshop on Blue carbon

Workshop Coastal Blue Carbon: Mitigation opportunities and vulnerability to change (Yeosu, Korea – May 2012)

Project “Ocean Carbon Sources and Sinks”.
Approved by RoK (2012-2014, 21 months)

Achievements Rio (Agenda 21) and JPoI

GOOS

IOC/UNESCO with the WMO and the International Council for Science (ICSU) has led the successful establishment of a GOOS focused on climate and weather (currently 62% implemented)

Integrated Coastal Mgt

Global agreement on the concepts of integrated coastal management (ICM) has been widespread since Rio, and most international entities and national governments agree on the broad principles

Regular Process

One of the major overall achievements of chapter 17 of Agenda 21 'to promote the sustainable utilization and conservation of the marine environment and its resources, both in the oceans and in coastal areas'. The UN Regular Process was formally approved by the UNGA in 2010 after many years of work and coordination by IOC, UNEP and DOALOS.

SIDS

Although work is only partially complete relating to SIDS, substantial GEF investment has been made in capacity building for SIDS sustainability through the Pacific Alliance for Sustainability and comparable work in the Caribbean and Afro-Indian SIDS. SIDS have received among the highest levels of GEF funding on a per capita or (land) area basis

Ecosystem Based App.

The **LME Program** has actively engaged in meeting marine-related targets set in Johannesburg to promote ecosystem based, integrated ocean and coastal management. GEF support of 17 LME projects since 1998 has led to the establishment of several new LME Commissions



Achievements Rio (Agenda 21) and JPoI

Reg Fisheries Org

New Regional Fisheries Management Organisations/ Arrangements have been established, while many existing ones have been strengthened so that they, among other things, implement new international arrangements

Ecosystem app to Fish.

FAO has developed specific guidelines on the ecosystem approach to fisheries and aquaculture and its implementation. These incorporate the precautionary approach and reference points which are specifically promoted in the binding UN Fisheries Stocks Agreement (UNFSA)

Code of conduct

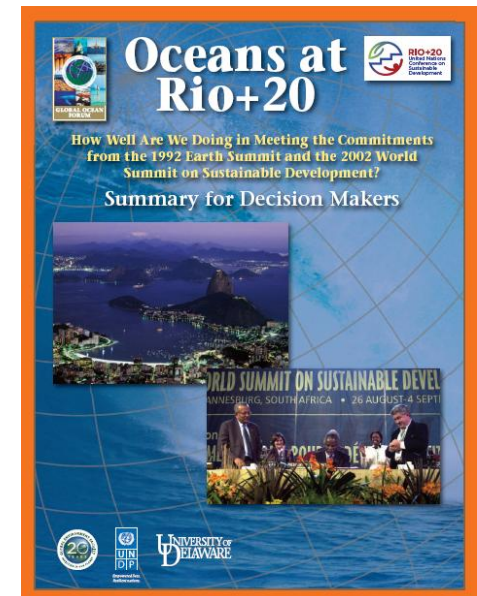
FAO and member countries' efforts continue to implement the Code of Conduct for Responsible Fisheries. The FAO Committee on Fisheries has recently agreed to complement the Code with a new international instrument on small-scale fisheries focusing on the needs of developing countries

Int. Shipping

IMO has adopted no less than 10 international treaties dealing with protection of the environment from international shipping. Added to IMO's numerous other conventions, codes and guidelines, this has made international shipping the most energy efficient and environmentally sound means of bulk transportation

Invasive species

In 2004 IMO launched the global convention on ship ballast water and sediments. Expected to come into force shortly, the Convention dramatically reduces risks from aquatic invasive species through enhanced ballast water management, treatment, monitoring and enforcement and has already catalysed the creation of a global multibillion dollar ballast water treatment and management industry



Ocean Side Events at Rio+20

Ocean Side Event at Rio+20

List of registered events

The full list of on site Side Event can be found at the following web address:

http://www.unesco.org/rio20/meetings_sideevents.html

Time slot	Title and organisation	Venue
12 June		
18:15 - 20:00	Oceans In Focus: Science and Governance for Global Sustainability IOC-UNESCO Side event during the ICSU forum	Pontifical Catholic University of Rio de Janeiro Rua Marquês São Vicente, 225 Gávea, Rio de Janeiro, RJ, Brazil
13 June		
13:30 - 15:00	High Seas Alliance: Towards an Agreement for Protecting the High Seas OceanCare	T-8 Rio Centro
14 June		
13:30 - 15:00	Greenpeace: An Oceans Rescue Plan for Rio	T-3 Rio Centro
16 June		
8:30 - 19:30	Advancing Ocean and Coasts at Rio+20 GOF	Rio Conventions Pavilion (with participation of IOC)
15:30 - 17:00	Oceans for the future – How can we achieve marine reserve targets? Zoological Society of London	P3-B Rio Centro
17 June		
17:30 - 19:00	Ocean in Google Earth as an Environmental Educational Tool: The Dominican Perspective	T9 Rio Centro
19:30 - 21:00	Achieving a sustainable future in Rio: what can do a "Blue Economy"? Vital Actions for Sustainable Development (IAD)	T-3 Rio Centro
18 June		
13:30 - 15:00	Promoting a Green Economy in Africa, LDCs, SIDS and LLDCs/Challenges/O Office of the Special Adviser on Africa (OSAA)	T-3 Rio Centro
17:00 - 19:00	Hot, Sour and Breathless – Ocean under stress European Union	UE Pavilion (with participation of IOC)
17:30 - 19:00	Sustainable Energy, Food, Water & Oceans International Atomic Energy Agency (IAEA)	P3-E Rio Centro
19 June		
10:00 - 13:30	Thematic dialogue on oceans, organised by the Government of Brazil	Pavilion 5 (with participation of IOC)
13:30 - 15:00	Sustainable fisheries in the commonwealth Commonwealth Human Ecology Council (CHEC)	T-5 Rio Centro

15:30 - 17:00	Pacific Islands: Applying the green economy in a blue world Secretariat of the Pacific Regional Environment Programme (SPREP)	T-10 Rio Centro
19:30 - 21:00	Oceans at Rio+20: Toward implementation of the Rio Ocean Commitments International Coastal and Ocean Organization, Secretariat of the Global Ocean Forum	P3-A Rio Centro
20 June		
9:00-10:30 am	Know our Ocean, Protect our Marine Treasures, Empower Ocean Citizens IOC-UNESCO Side Event	T-9 Rio Centro
11:00 - 12:30	Building Marine Ecosystem Resilience to Ocean Acidification Micronesia, Federated States of	P3-B Rio Centro
13:00 - 14:30	The Maldives story Maldives	P3-F Rio Centro
17:00 - 18:30	Across the Regions: SIDS Solutions for Sustainable Development Commonwealth Secretariat - United Kingdom	T-8 Rio Centro
17:00 - 18:30	Australian side event hosted by Prime Minister Julia Gillard Australia	P3-A Rio Centro
21 June		
17:00 - 18:30	Sustainable Use of Oceans Monaco	T-6 Rio Centro
19:00 - 20:30	Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security WWF International	P3-B Rio Centro
22 June		
11:00 - 12:30	Blue Economy Leadership Event: showcasing efforts to achieve a Blue Economy Indonesia	P3-B Rio Centro

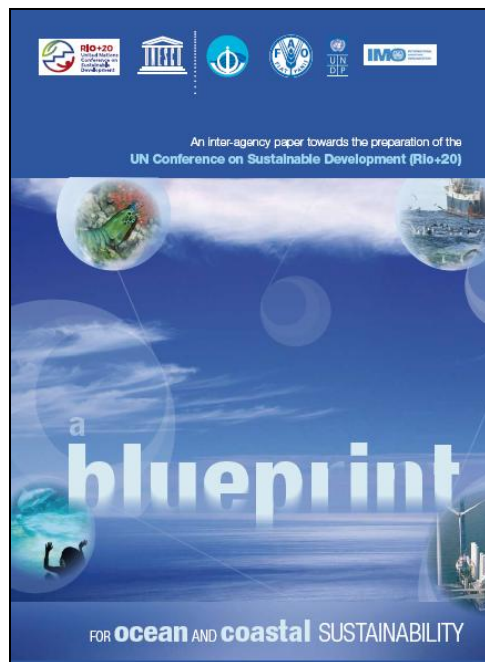


Chemical understanding of CC (OA and carbon)

Observed trends in Carbon, pH and ocean acidification exist, appear persistent, and show coherent although still incomplete, but progressing in quantitative understanding

Cutting-edge research directions on carbon cycle (selection)

- Detection of ocean $p\text{CO}_2$ trend and inventory departures from expected values
- Attribution of the contribution of increasing atmospheric CO_2 , climate variability and climate change on regional trends
- Impact of change in ecosystems on ocean carbon cycle
- Stock and vulnerability of coastal carbon and their valuation
- Quantifying the uncertainty in trends
- Impacts of OA in marine biota



MATRIX COMPARING WHICH OBJECTIVES ARE RELEVANT TO EACH PROPOSAL

	OBJECTIVE 1 Actions to reduce stressors & restore the structure and function of marine ecosystems	OBJECTIVE 2 Actions that support the Blue-Green Economy	OBJECTIVE 3 Actions leading to Policy, Legal and Institutional Reforms for effective Ocean Governance	OBJECTIVE 4 Actions supporting marine research, monitoring and evaluation, technology and capacity transfer as a mean for improving knowledge, addressing emerging issues, developing capacities in support of sustainable use of the ocean
Implement Urgent Actions to Mitigate and Adapt to Ocean Acidification	●			●
Develop and Execute a Global Program aimed at Greater Protection and Restoration of Vital Ocean and Coastal Habitats, and develop a Global Blue Carbon Market as a means of Creating Direct Economic Gain through Habitat Protection	●	●		●
Strengthen the Legal Framework to Effectively Address Aquatic Invasive Species	●	●	●	●
Build Green Societies in Small Island Developing States: Addressing Key Vulnerabilities		●		●
Increase Efforts for Responsible Fisheries and Aquaculture in a Green Economy	●	●	●	●
Green the Nutrient Economy and Reduce Ocean Hypoxia through Policy, Regulatory and Economic Instruments that Promote Nutrient Efficiency and Recovery	●	●	●	
Create and Implement an Institutional and Legal Framework to Protect Habitats and Biodiversity Beyond National Jurisdiction	●		●	●
Reform Regional Ocean Management Organisations			●	●
Enhance Coordination, Coherence and Effectiveness of the UN System on Oceans Issues			●	
Increase Institutional and Human Capacity for Sustained Observations, Monitoring, Marine Research, and Progress evaluation of International commitments		●		●

● Primary objective ● Secondary objective

Blue forests, the Earth's other lung

Story idea

New research has demonstrated that seagrass beds can store up to 83,000 metric tons of carbon per square kilometer, mostly in the soils below them. In comparison, a typical terrestrial forest stores around 30,000 metric tons per square kilometer, most of which is in the form of wood.

57% of atmospheric carbon captured by living organisms is captured, in fact, by marine organisms, and of this between 50 and 71% is captured by the ocean's vegetated habitats including mangroves, salt marshes, sea grasses and seaweed, so-called blue forests, which cover less than 0.5% of the seabed. These key coastal habitats represent an important opportunity for ecosystem-based climate mitigation (known as 'blue carbon') which also preserves the essential ecosystem services of these habitats.

THE FUTURE WE WANT (Official outcome Rio+20)

176. We also recognize the significant economic, social and environmental contributions of coral reefs, in particular to islands and other coastal States, as well as the significant vulnerability of coral reefs and **mangroves** to impacts including from climate change, ocean acidification, overfishing, destructive fishing practices and pollution. We support international cooperation with a view to conserving coral reef and mangrove ecosystems and realizing their social, economic and environmental benefits as well as facilitating technical collaboration and voluntary information sharing.



Others: voluntary actions

2. CLIMATE AND OCEANS

Develop an integrated approach to addressing the interlinked issues of oceans, climate change, and security within and outside the UN Framework Convention on Climate Change (UNFCCC) that includes provisions for:

Mitigation

- > Adopt stringent reductions in greenhouse gas emissions to avoid disastrous consequences on coastal communities, marine ecosystems, and ocean chemistry;
- > Accelerate efforts to reduce emissions from marine industries, including efforts by the International Maritime Organization (IMO) and others;
- > Conserve and sustainable manage coastal ecosystems as major carbon sinks ("Blue Carbon"), and integrate Blue Carbon into the policy and financing processes of the UNFCCC as a major tool for climate change mitigation;

The Oceans Day at Rio+20
Advancing Oceans, Coasts, and Island States at Rio+20 and Beyond

Saturday, June 16, 2012, 9:15 AM to 6:30 PM (Reception following)
United Nations Conference on Sustainable Development
Rio Conventions Pavilion, Rio de Janeiro, Brazil

Purpose

The Oceans Day at Rio+20 will bring together high-level representatives from governments, international organizations, nongovernmental organizations, industry, and the science community to:

- Reflect on what has/has not been done in achieving major ocean-related sustainable development commitments
- Rekindle political will to implement new and old commitments
- Showcase tangible pledges for action, including Voluntary Commitments for Rio+20, to spur action on oceans, coasts, and small island developing States in the post-Rio+20 world, and
- Consider the opportunities and challenges for implementation of the "oceans package" emanating from the Rio+20 Conference.

Main Organizers:

Global Ocean Forum; State Oceanic Administration (SOA), People's Republic of China; Global Environment Facility (GEF); United Nations Development Programme (UNDP); Ocean Policy Research Foundation (OPRF); Japan; University of Delaware

Co-Organizers:

Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO); United Nations Environment Programme (UNEP); Convention on Biological Diversity (CBD) Secretariat; Food and Agriculture Organization of the United Nations (FAO); International Maritime Organization (IMO); World Bank; Forum do Mar (Brazil); Pacific Islands Forum Secretariat; Republic of Seychelles; Republic of Vietnam; World Ocean Network; Korea Ocean Research and Development Institute (KORDI); World Wildlife Fund (WWF); The Nature Conservancy (TNC); Caribbean Large Marine Ecosystem Project (CLME); Natural Resources Defense Council (NRDC); Plymouth Marine Laboratory; SeaOrbiter

Main Organizers:

Global Ocean Forum, State Oceanic Administration, People's Republic of China, GEF, UNDP, OPRF, University of Delaware

Co-Organizers:

IOC-UNESCO, UNEP, CBD Secretariat, FAO, IMO, World Bank, Forum do Mar (Brazil), Pacific Islands Forum Secretariat, Republic of Seychelles, Republic of Vietnam, World Ocean Network, KORDI, WWF, TNC, CLME, NRDC, Plymouth Marine Laboratory, SeaOrbiter

Others: opportunities and partnerships

Global Ocean Forum

Global Partnership for Oceans (Word Bank)

Future Earth (ICSU, Belmont Forum)

Future Oceans Alliance