

*Sustainable Ocean Initiative Capacity Building Workshop for South America
23 to 27 February 2015, Lima, Peru*

CBD's Relevant Work on Marine and Coastal Biodiversity

*Jihyun Lee and Joe Appiott, CBD Secretariat
Eduardo Klein, OBIS*



Convention on
Biological Diversity

Global Biodiversity Outlook 4

A mid-term assessment of progress towards the implementation of the Strategic Plan for Biodiversity 2011–2020



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Biological Diversity



GBO-4: A mid-term assessment of progress towards the implementation of the Strategic Plan for Biodiversity 2011-2020



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Scope of the Global Biodiversity Outlook 4

GBO-4 addresses four questions:

1. Are we on track to reach the Aichi Targets by 2020?
2. What actions need to be taken to achieve the Aichi Targets?
3. How do the Aichi Targets and progress towards them position us to attain the 2050 Vision of the Strategic Plan?
4. How does implementation of the Strategic Plan and progress towards the Aichi Targets contribute to broader development goals?

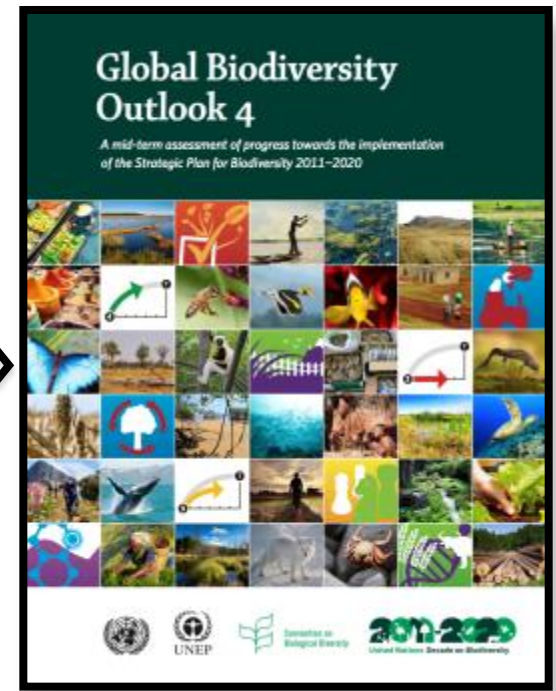
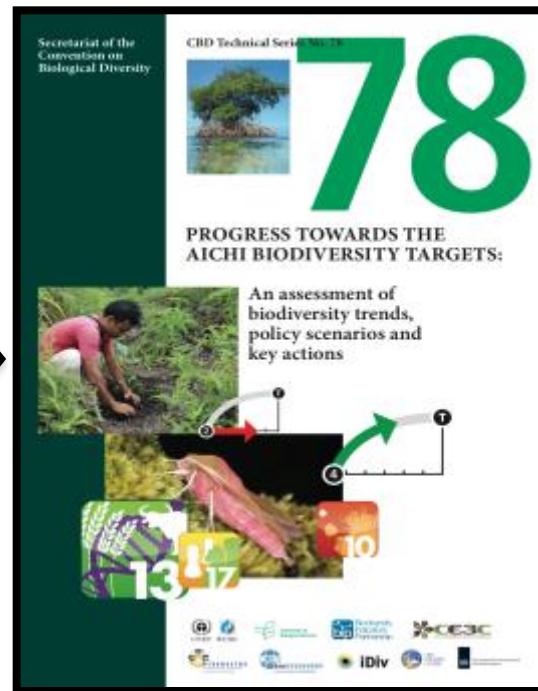


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Organisation of the report

- Scientific literature and other reports
- National Biodiversity Strategies and Action Plans (NBSAPs)
- National reports
- Indicator-based extrapolations of trends to 2020
- Model-based scenarios to 2050...



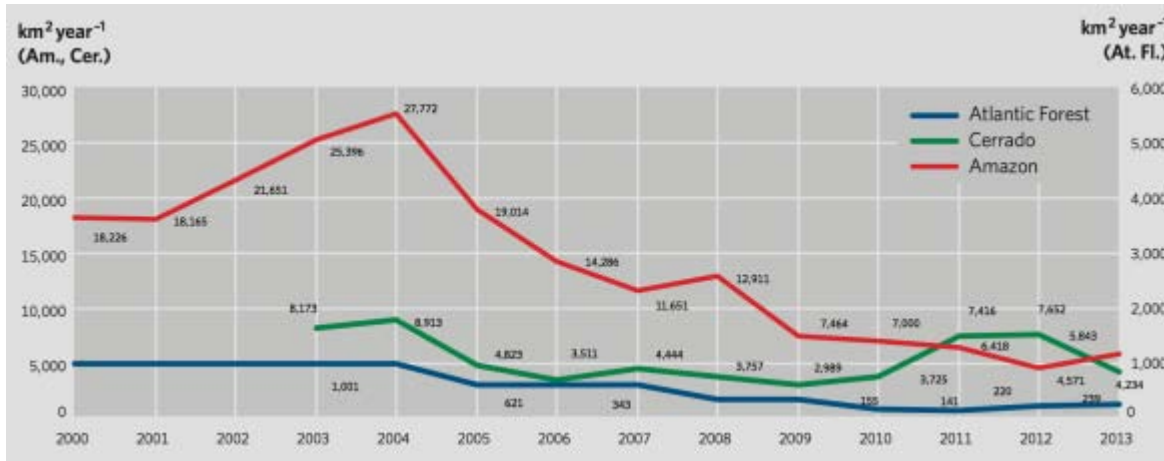
**Sources of
information used
for the assessment**

**CBD Technical
Reports 78 (+79 & 81)
*detailed analysis***

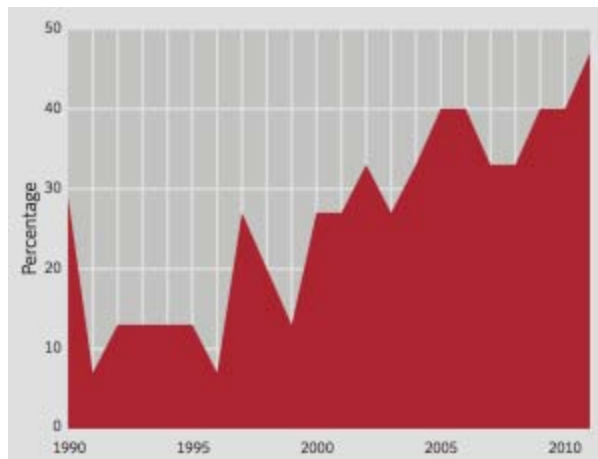
**Main report
*summaries***

GBO-4 provides a rich set of case studies illustrating successful approaches

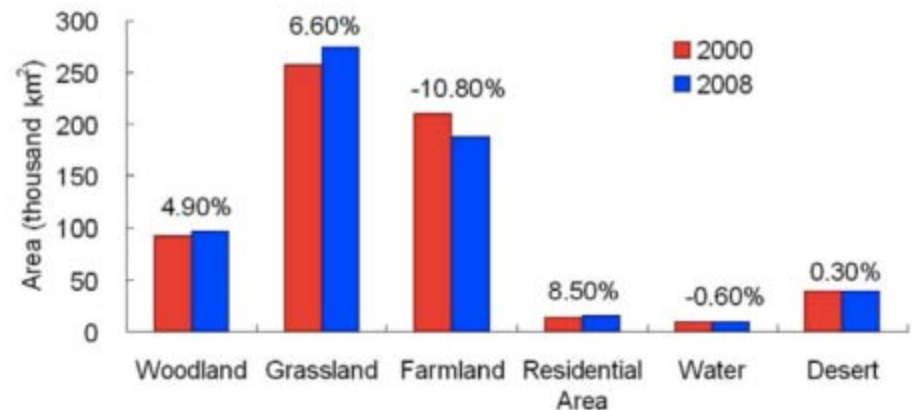
Box 5.1. Pathways for reductions in habitat loss: Brazil case study.



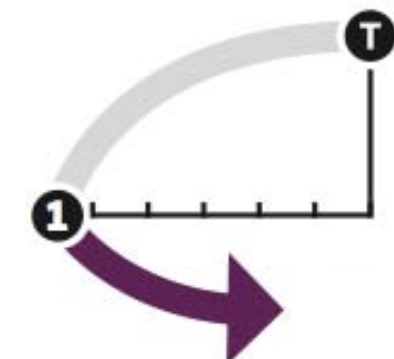
Box 6.1. Sustainability in UK Fisheries



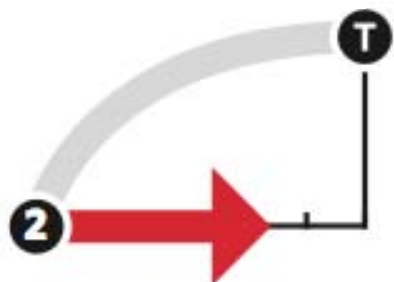
Box 15.1. Ecosystem restoration in China



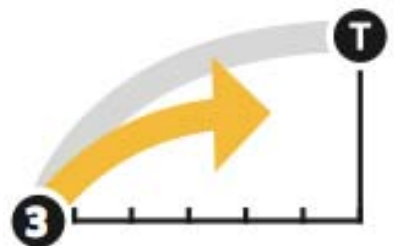
Assessment of progress towards the Aichi Targets in the “dashboard” of the GBO-4 Executive Summary



Moving
away from
Target



No progress
towards
target



Progress
towards target,
but not
sufficient to
achieve it



On track to
achieve
Target



On track to
exceed
Target

No clear
evaluation

Insufficient
information
to evaluate
progress

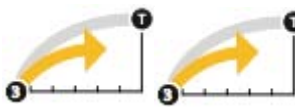
Overview of the “Dashboard” for the Aichi Targets

Target elements

Underlying Causes

A

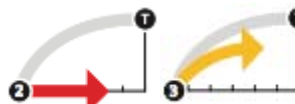
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2



3



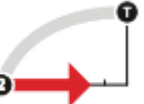
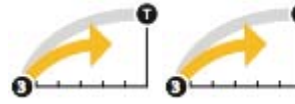
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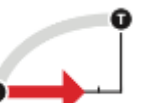
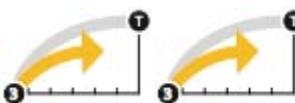


8

No clear evaluation



9



10



No clear evaluation

Enhance benefits Status of biodiversity

C

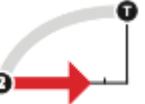
11



12



13



No clear evaluation



14



15



16



17



18



19



20



Direct pressures

B

Enhance benefits

D

Enhance Implementation

E



Conclusions

- **Progress is being made towards reaching the majority of the Aichi Targets.**
- **However, this progress is insufficient to attain most of the Aichi Targets by 2020, meaning that a redoubling of efforts is needed.**
- **Despite considerable progress in a wide range of actions to improve the status of biodiversity and ecosystems, most indicators of the status of biodiversity continue to decline, in part due to persistent increases in pressures.**
- **Examples of coordinated national actions show that treating multiple drivers and multiple targets can lead to improvements of biodiversity status.**
- **Scenarios show that it is possible with strong, concerted action to couple improvements in the status of biodiversity, reduce greenhouse gas emissions and improve the well-being of all people.**



Scientific assessment of ecologically or biologically significant marine areas (EBSAs): Overview of CBD Secretariat's work

Jihyun Lee

Secretariat of the Convention on Biological Diversity

Disclaimer

The designations employed and the presentation of material in these slides do not imply the expression of any opinion whatsoever on the part of the Secretariat concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Where are ecologically or biologically significant marine areas?

Inherent
value of
marine
biodiversity

Marine Protected Areas?

Fishing Closure?

Jurisdictional matters?

Human
interventions

By States and
Competent
intergovernmental
organizations

CBD scientific criteria for ecologically or biologically significant areas (EBSAs) (annex I, decision IX/20)

1. Uniqueness or Rarity
2. Special importance for life history stages of species
3. Importance for threatened, endangered or declining species and/or habitats
4. Vulnerability, Fragility, Sensitivity, or Slow recovery
5. Biological Productivity
6. Biological Diversity
7. Naturalness

CBD Process on Ecologically or Biologically Significant Marine Areas (EBSAs) through regional workshops

- Synthesis of best available scientific and technical information
- Expert scientific judgment on the application of EBSA criteria
- Description and mapping of areas that meet the EBSA criteria



COP 10 guidance on EBSAs (decision X/29)

- COP 10 noted the application of **scientific criteria for identifying EBSAs, adopted by COP in decision IX/20 (annex I)**, presents a tool,,,,,towards implementation of **ecosystem approaches** in relation to areas both **within and beyond** national jurisdiction
- COP 10 noted :
 - the application of EBSAs scientific criteria is a **scientific and technical exercise**
 - that areas found to meet the criteria may require **enhanced conservation and management measures**, including MPAs and impact assessments
 - EASAs identification and selection of conservation and management measures is a **matter of States and competent intergovernmental organizations**



- COP 10 requested the Executive Secretary to work with Parties and other Governments as well as competent organizations and regional initiatives, such as the Food and Agriculture Organization of the United Nations (FAO), regional seas conventions and action plans, and, where appropriate, regional fisheries management organizations (RFMOs), with regards to fisheries management, to organize, including the setting of terms of references, **a series of regional workshops**, before a future meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) prior to the eleventh meeting of the Conference of the Parties to the Convention, with a primary objective to **facilitate the description of ecologically or biologically significant marine areas through application of scientific criteria** in annex I of decision IX/20 as well as other relevant compatible and complementary nationally and intergovernmentally agreed scientific criteria, as well as the scientific guidance on the identification of marine areas beyond national jurisdiction, which meet the scientific criteria in annex I to decision IX/20;

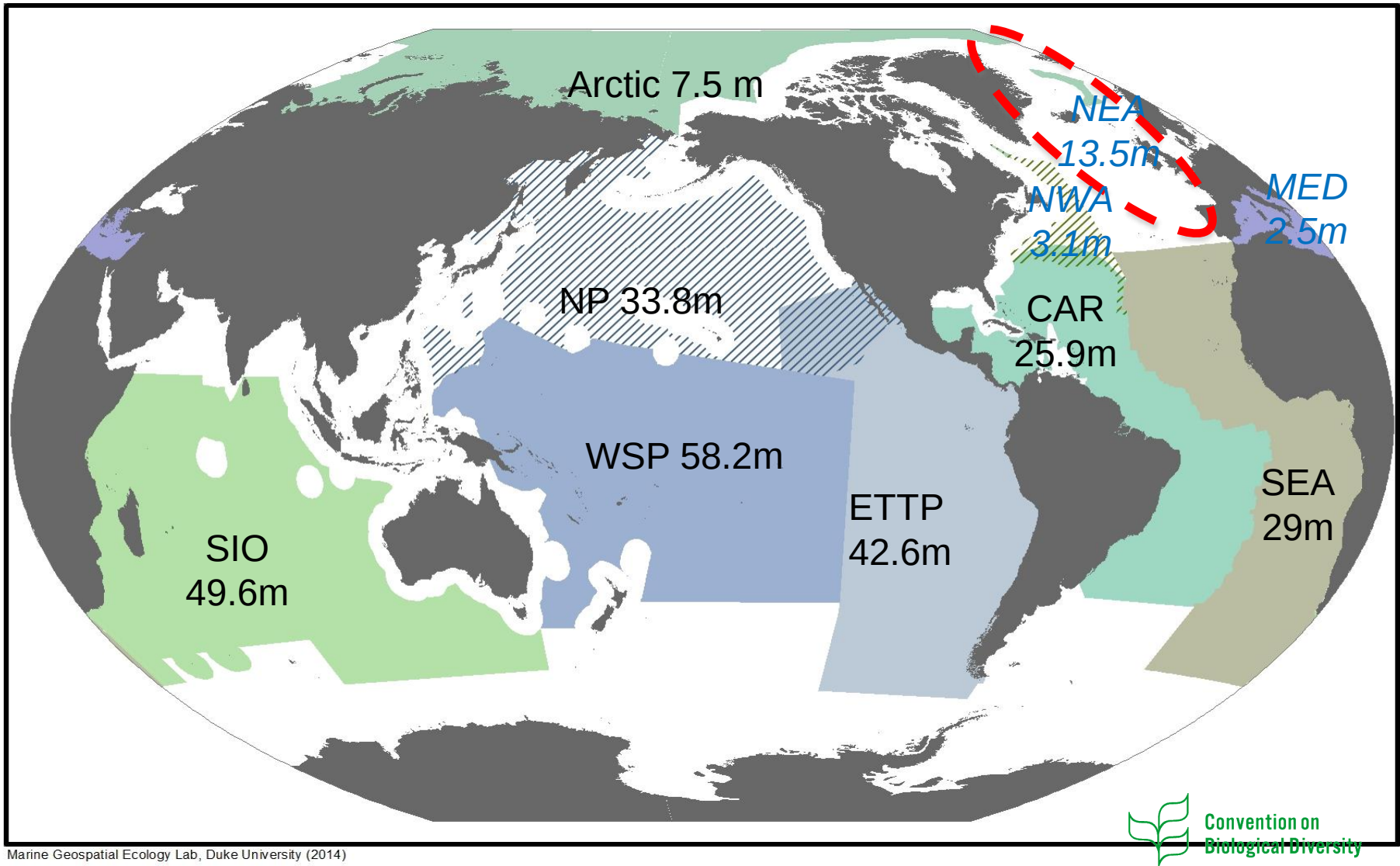


CBD regional workshops on description of EBSAs (decision X/29, para 36; decision XI/17, para 12)

CBD Regional Workshop on EBSAs	Date	Host Country	No. of Countries	No. of Reg'l & Int'l Org involved
Western South Pacific	No			10
Wider Caribbean & Western Mid-Atlantic				15
Southern Indian Ocean	Jul			20
Eastern Tropical & Temperate Pacific	Aug 2012	Ecuador	13	12
North Pacific	Feb 2013	Russia	8	7
South-Eastern Atlantic	April 2013	Namibia	17	15
Arctic	March 2014	Finland	7	13
North-west Atlantic	March 2014	Canada	2	4
Mediterranean	April 2014	Spain	21	16
Total			122	112

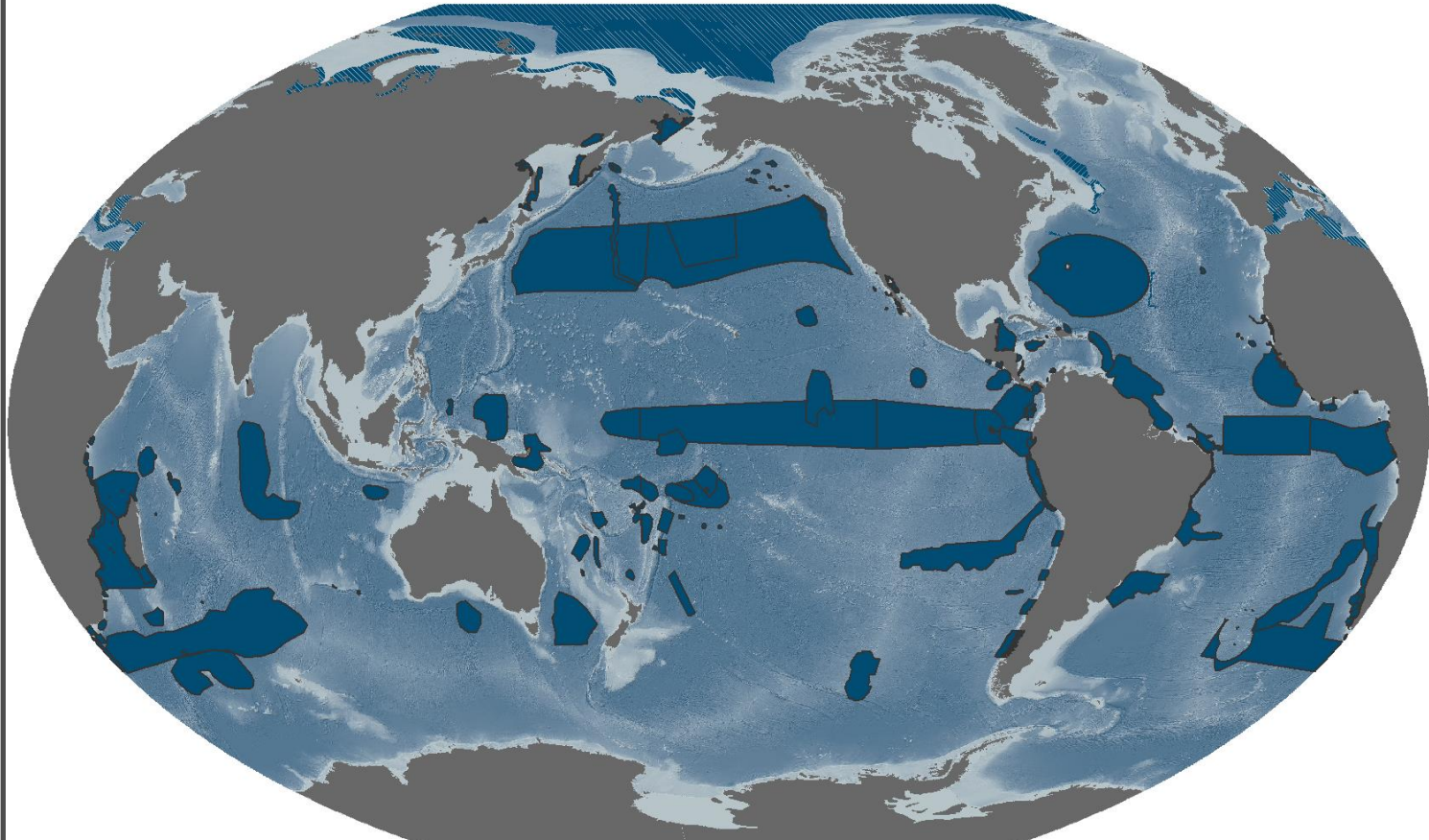
**Summary Report
submitted to UNGA as
requested by COP 11,
available as UNGA
Document A/67/838**

Ocean area covered by CBD EBSA regional workshops as well as relevant regional EBSA processes: 265.7 million sq.km



Areas meeting CBD Scientific Criteria for Ecologically or Biologically Significant Marine Areas
(EBSAs, annex 1 to decision IX/20) :

204 areas (out of 207 areas described) considered and decided by
COP 11 N(47 areas) and 12 (157 areas)
for inclusion in the repository and submission to UNGA



Disclaimer: This is an information ONLY for the presentation at this meeting.
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Distribution.

Lessons, Challenges and Opportunities

- The EBSA process, in particular data assimilation and distribution process, facilitated **scientific collaborations and capacity building at regional scale**
- Enhanced knowledge on marine biodiversity in open-ocean and deep-sea habitats through EBSA description has contributed **to existing regional and national conservation efforts (e.g. some being used to drive marine spatial planning within EEZs)**
- This expert driven process provides an important starting point for future **long-term continuous and more systematic assessment** with increasing availability of scientific information
- EBSAs provide potential focus **for future research and monitoring**

<http://www.cbd.int/ebsa/>

← →

www.cbd.int/ebsa/

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🔍 🏠



Ecologically or Biologically Significant Marine Areas
Special places in the world oceans

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EBSAs

MEETINGS

RESOURCES

PARTNERS

View EBSAs Regions

All Regions

Western South Pacific Region

Wider Caribbean And Western Mid-Atlantic Region



Google

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 Upcoming Meetings

More »

No meetings...

 Previous Meetings

More »

Mediterranean Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas (EBSAs)

Documents »

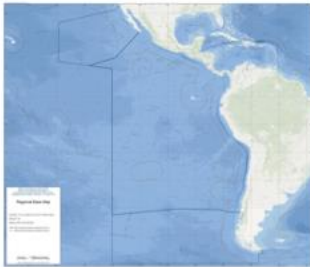
North-west Atlantic Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas (EBSAs)

Documents »

Review of relevant scientific information compiled for the South American EBSA workshops in 2012

Revisión de la información científica relevante compilada para el taller: datos/información/mapas

Taller para facilitar la descripción de las EBSAs de la región
Templada y Tropical del Pacífico Oriental
27 – 31 August 2012, Galápagos, EC

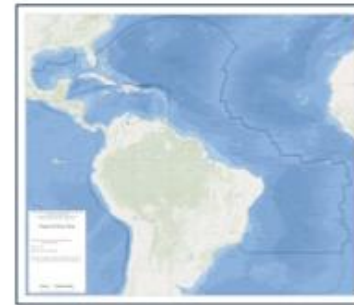


Jesse Cleary, Patrick Halpin, Daniel Dunn, and Ben Donnelly
Marine Geospatial Ecology Lab, Duke University, USA

Eduardo Klein, Universidad Simón Bolívar, Venezuela

Review of relevant scientific data/information/maps compiled

The Wider Caribbean and Western Mid-Atlantic EBSA Workshop
February 27, 2012 Recife, Brazil



Patrick Halpin, Jesse Cleary and Ben Donnelly
Marine Geospatial Ecology Lab, Duke University, USA

Eduardo Klein, Universidad Simón Bolívar, Venezuela

Workshop data reports



Data to inform the CBD Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas in the Eastern Temperate and Tropical Pacific

Patrick Halpin, Jesse Cleary, Corrie Curtice, Ben
Donnelly, Daniel Dunn, Eduardo Klein, Jason Roberts
27 – 31 August 2012

Prepared for the Secretariat of the Convention on
Biodiversity (SCBD)



Data to inform the CBD Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas in the Wider Caribbean and Western Mid-Atlantic

Patrick Halpin, Jesse Cleary, Corrie Curtice, Ben Donnelly
February 20, 2012

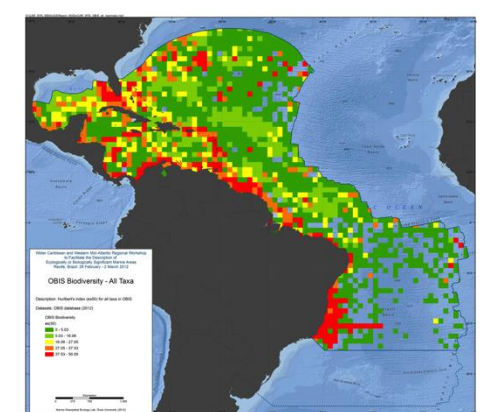
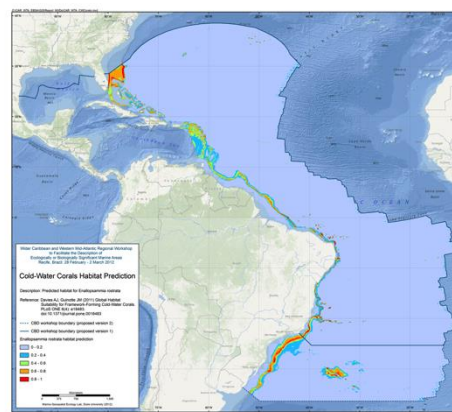
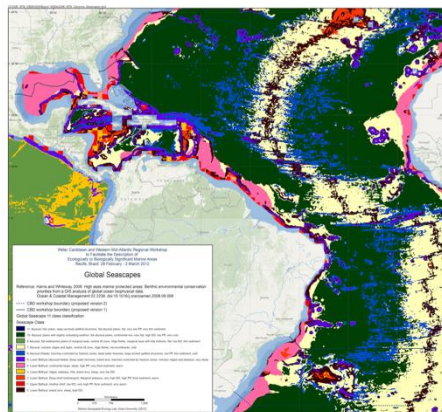
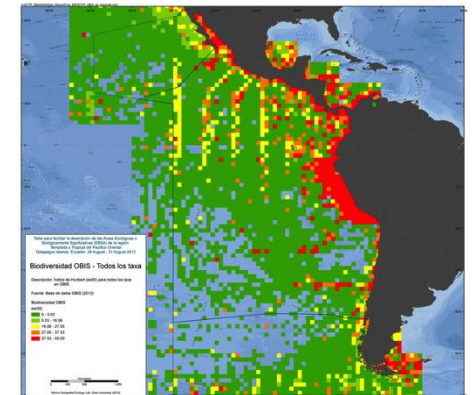
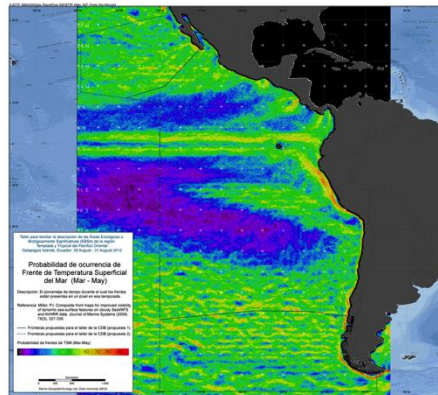
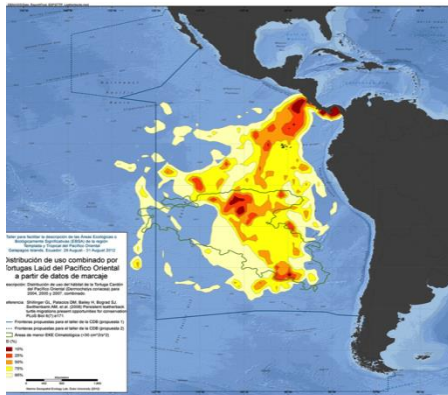
Prepared for the Secretariat of the Convention on
Biodiversity (SCBD)



Datos de línea base están
descritos en los reportes

Types of Data

- Biogeographic
- Biological data
- Physical Data



Workshop Process

Expert Presentations



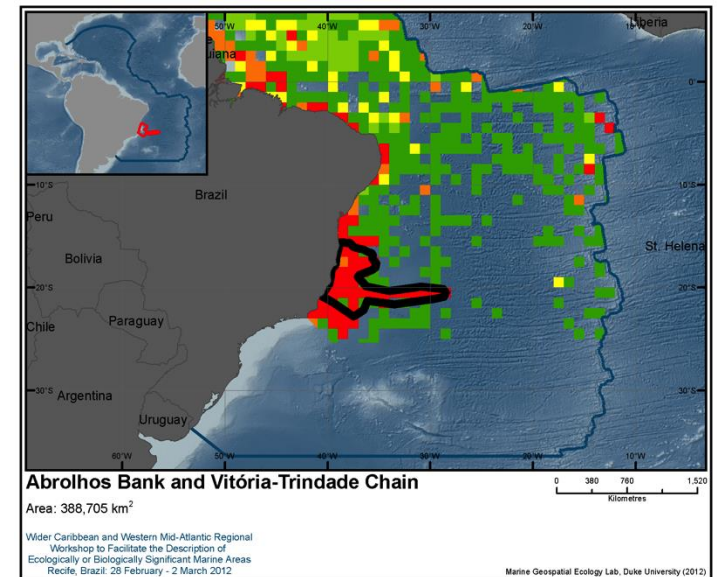
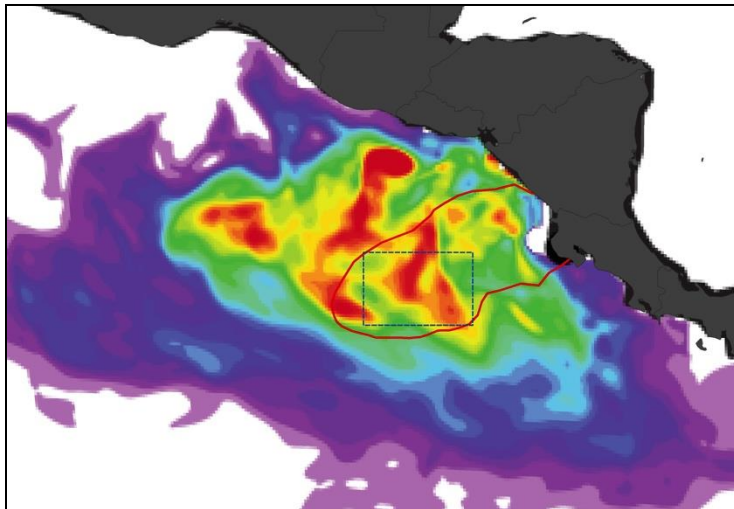
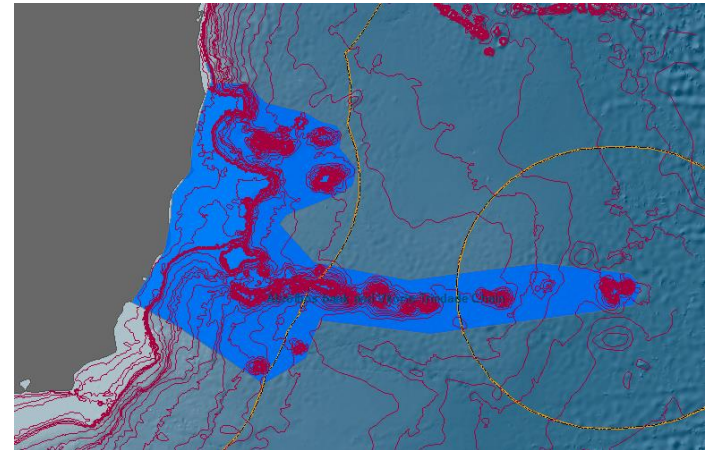
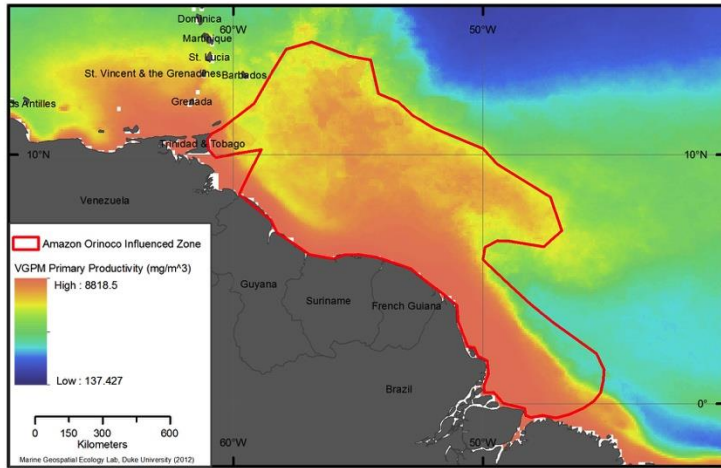
Workshop Process

Live GIS sessions

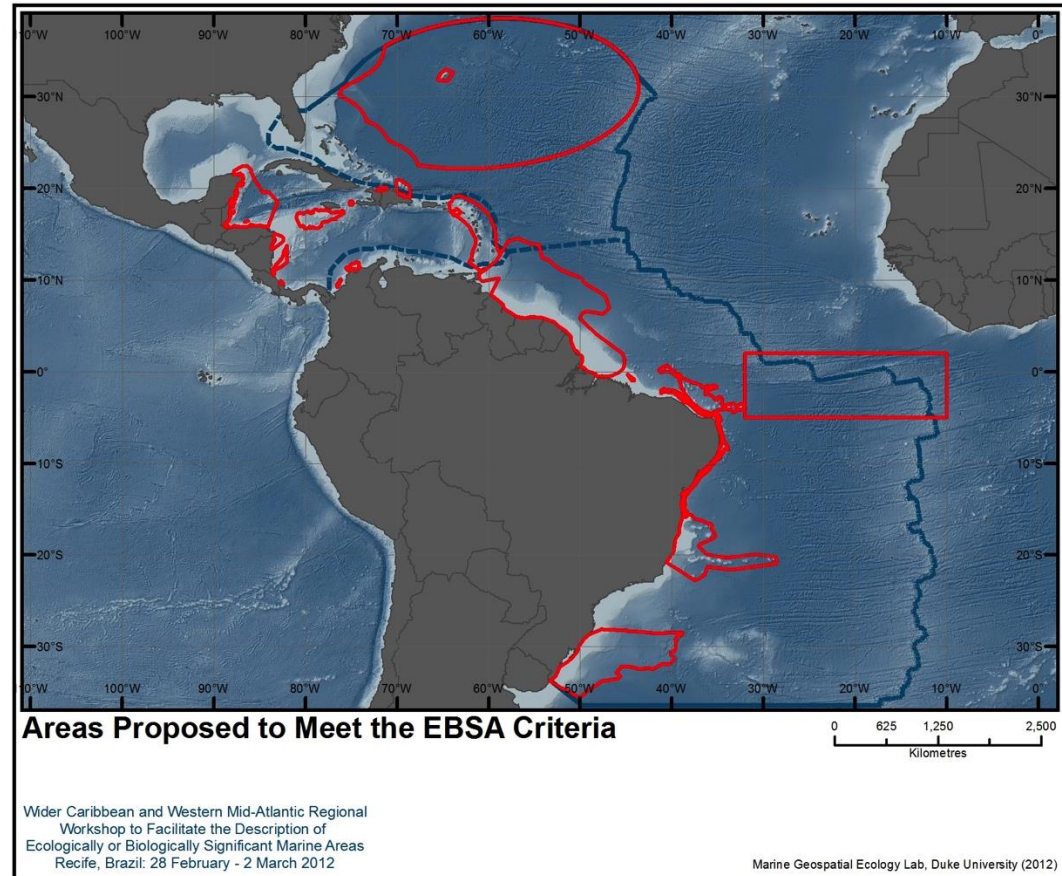
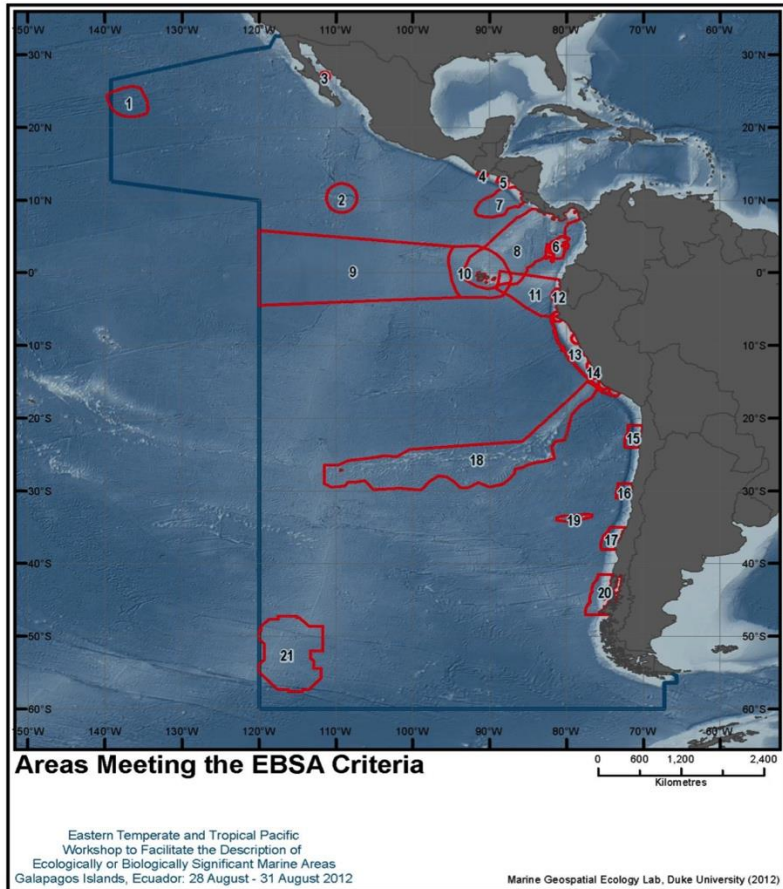


Workshop Process

GIS Analysis – EBSA criteria



Workshop results





Scientific synthesis on the impacts of ocean acidification on marine and coastal biodiversity

2014 CBD's Updated synthesis on the impacts of OA on marine biodiversity:

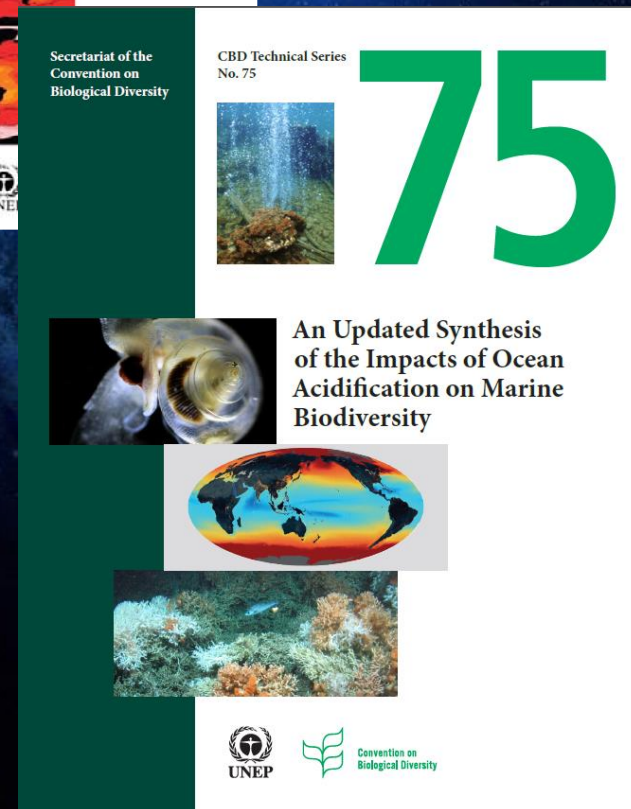
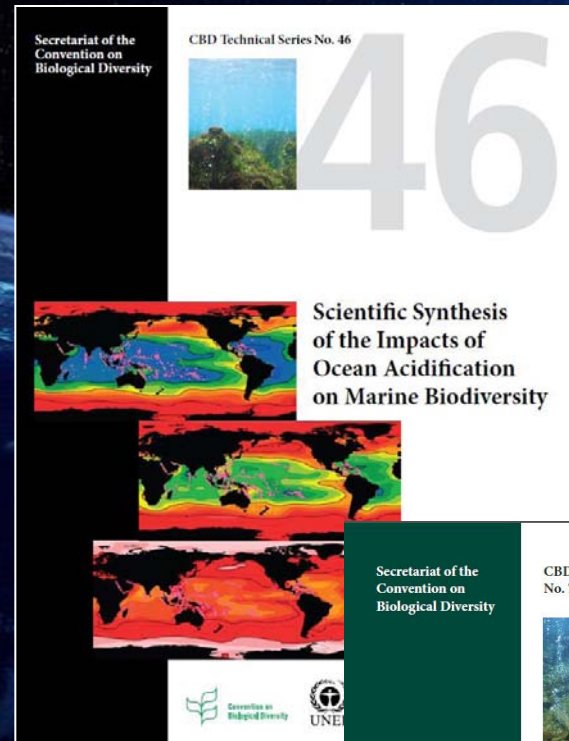
<http://www.cbd.int/doc/publications/cbd-ts-75-en.pdf>

1. CBD Technical Series No. 46 (2009)

<http://www.cbd.int/doc/publications/cbd-ts-46-en.pdf>

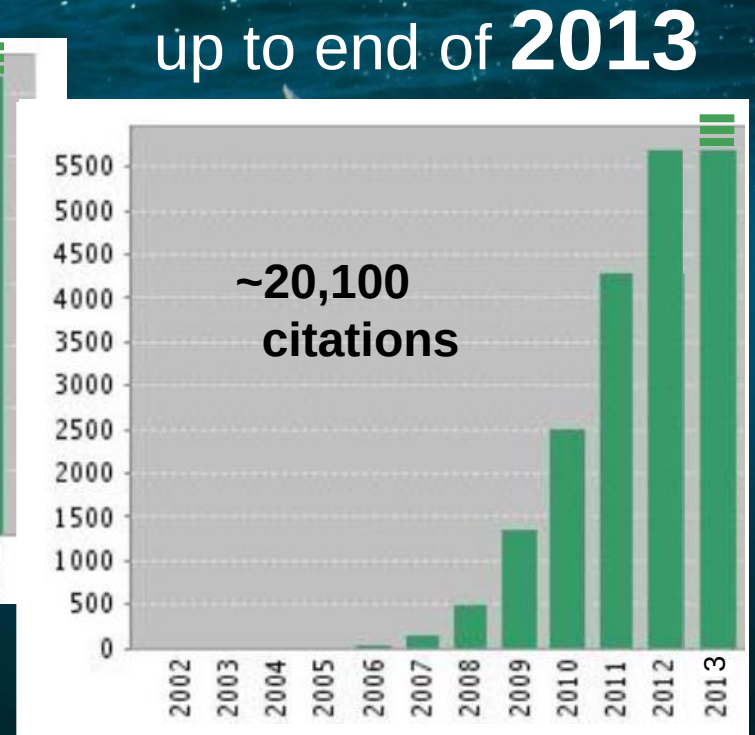
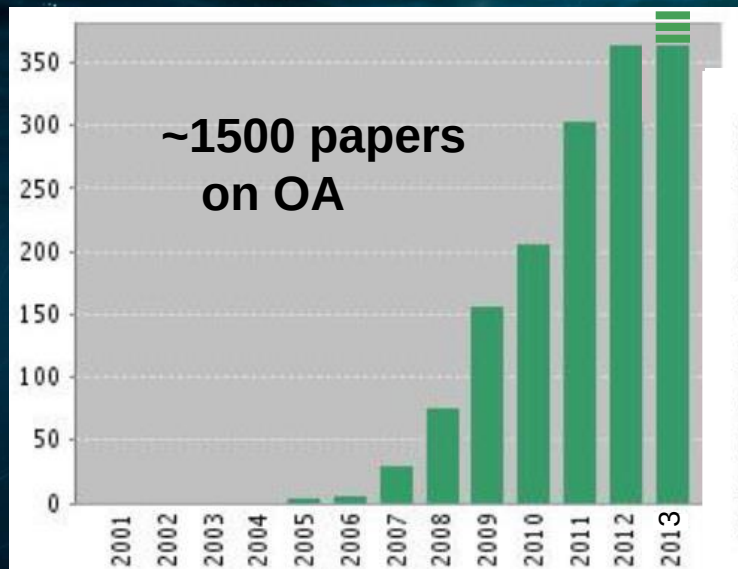
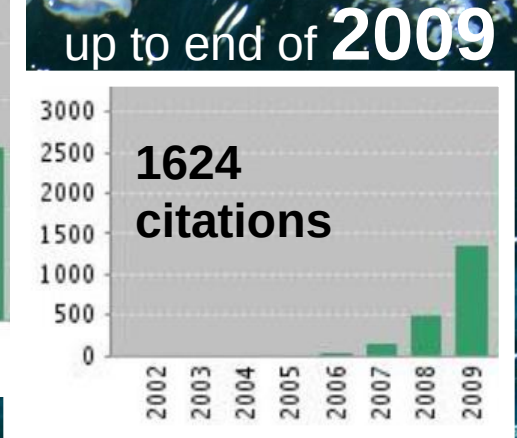
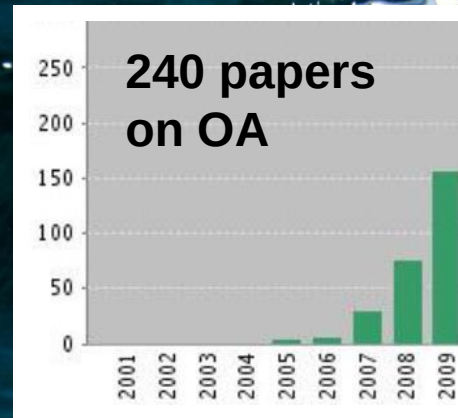
2. CBD Expert Meeting on OA: Montreal, Oct 2011

3. COP 11 requested for a new review : Oct 2012, Hyderabad



Scientific context for an updated synthesis:

*Six-fold increase in research
literature on ocean acidification
since CBD Technical Series No. 46*

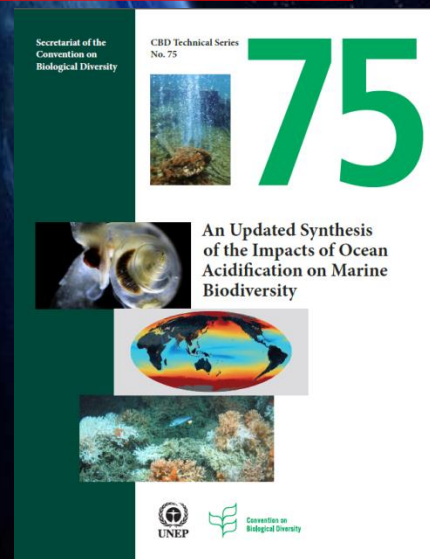


ISI World of Science data (provisional for 2013)

Contents of updated synthesis: CBD Technical Series 75

1. Background and Introduction
2. Current awareness
*includes **global initiatives and policy***
3. Global status and future trends
4. **What the past can tell us: palaeo-studies**
5. Impacts of OA on biodiversity and ecosystem function
*Includes physiological responses; **early life, fertilisation and settlement**; pelagic and benthic communities; **impacts on ecosystem services and livelihoods (economics)***
6. Future considerations
*includes **multiple stressors; monitoring and new technologies***
7. Conclusions

**New
sections**



21 key messages in the updated synthesis

1. Ocean acidification has increased by about 30% since pre-industrial times
2. International awareness of ocean acidification and its potential consequences is increasing
3. Seawater pH shows substantial natural and temporal variability
4. Substantial natural variability exists in organisms' responses to pH changes
5. Surface waters in polar seas and upwelling regions are increasingly at risk of becoming unsaturated with respect to calcium carbonate, dissolving unprotected shells and skeletons.
6. International collaboration is underway to improve ocean acidification monitoring, closely linked to other global observing systems
7. During natural ocean acidification events which occurred in the geological past, many marine calcifying organisms became extinct
8. Recovery from a major decrease in ocean pH takes many thousands of years
9. Ocean acidification has implications for acid-base regulation and metabolism for many marine organisms
10. Impacts of ocean acidification upon invertebrate fertilization success are highly variable, indicating the potential for genetic adaptation.
11. Ocean acidification is potentially detrimental for calcifying larvae.
12. Ocean acidification can alter sensory systems and behaviour in fish and some invertebrates
13. Around half of benthic species have lower growth rates and survival under projected future acidification
14. Many seaweed (macroalgae) and seagrass species can tolerate, or may benefit from, future ocean acidification
15. Many phytoplankton species could potentially benefit from ocean acidification
16. Planktonic foraminifera and pteropods seem likely to experience decreased calcification or dissolution under projected future conditions
17. Ocean acidification could alter many other aspects of ocean biogeochemistry, with feedbacks to climatic processes
18. Impacts of ocean acidification on ecosystem services may already be underway
19. Existing variability in organism response to ocean acidification needs to be investigated further, to assess the potential for evolutionary adaptation
20. Research on ocean acidification increasingly needs to involve other stressors, as will occur under field conditions in the future.
21. Ocean acidification represents a serious threat to marine biodiversity, yet many gaps remain in our understanding of the complex processes involved, and their societal consequences

21 key messages in the updated synthesis

1. Ocean acidification has increased by about 30% since pre-industrial times
2. International awareness of ocean acidification and its potential consequences is increasing

3. Seawater pH variability

4. Substantial impacts on organisms

5. Surface water increasingly to calcium carbonate skeletons.

6. International ocean acidification global observation

7. During natural in the geological became extinct

8. Recovery from thousands of

9. Ocean acidification regulation and metabolism for many marine organisms

10. Impacts of ocean acidification upon invertebrate fertilization success are highly variable, indicating the potential for genetic adaptation.

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ation
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... can be simplified to five key facts about ocean acidification and its impacts:

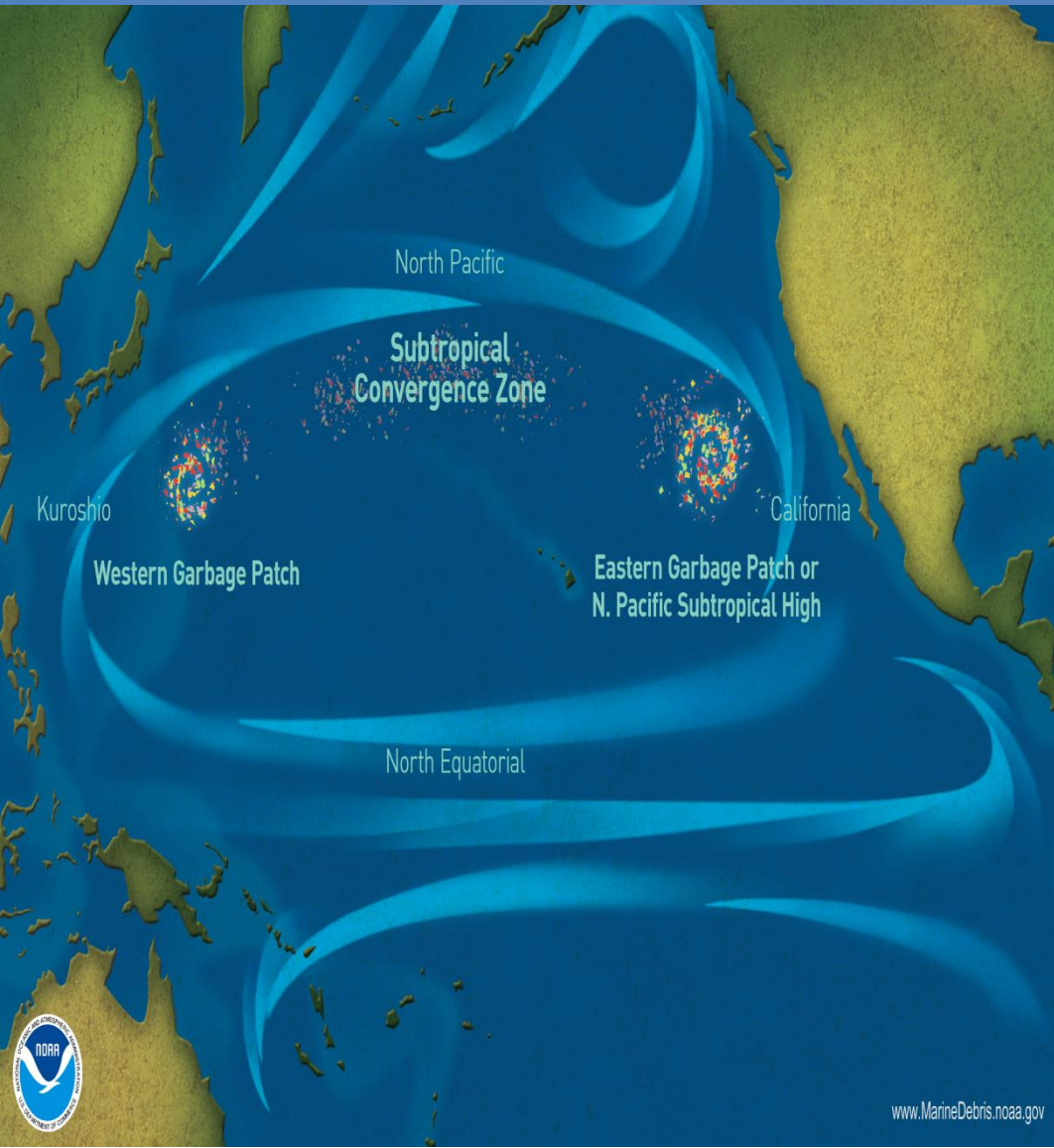
- CO₂ emissions are changing ocean chemistry
- Rate of change is geologically unprecedented *for at least 65 million years*
- Biological impacts are already occurring
- Ocean acidification interacts with other stressors
- Future ecological and socio-economic impacts may be severe *unless CO₂ emissions are reduced*

conditions in the future.

21. Ocean acidification represents a serious threat to marine biodiversity, yet many gaps remain in our understanding of the complex processes involved, and their societal consequences

Marine Debris and biodiversity

Addressing impacts of key pressures



Ecological Impacts:

Entanglement

Ingestion including toxicity

Smothering of habitat

Invasive alien species

Geographical distribution

Floating litter

Sea floor

Beach

Deep-sea floor

Ocean gyres

Number and proportions of selected species groups with records of entanglement and ingestion in 2012 and 2014

Note: Percentages in brackets = proportion of total number of known species affected

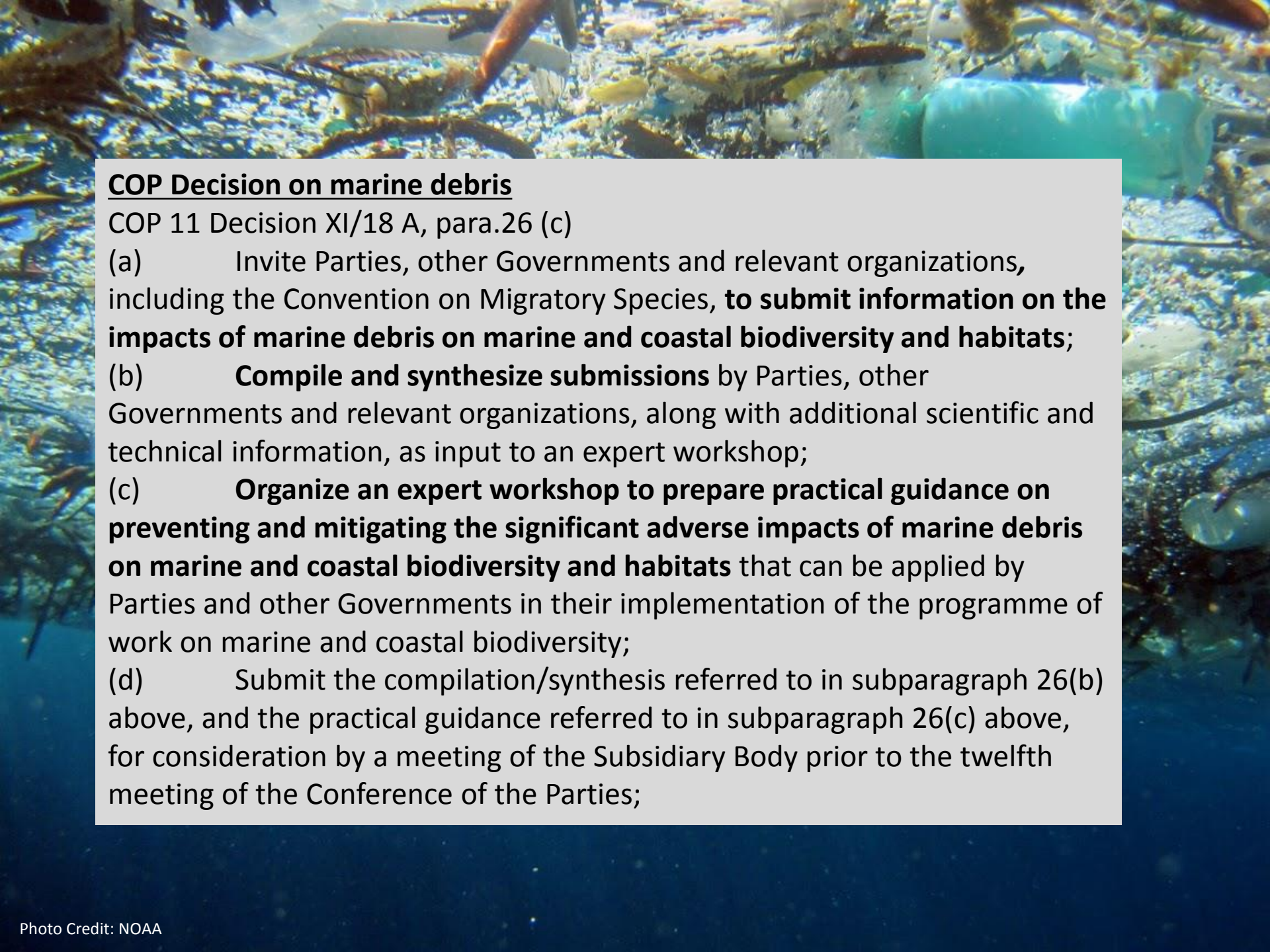
Species Group	Total number of known species	Number of species with entanglement records		Number of species with ingestion records	
		2012	2014	2012	2014
Marine Mammals	115	52 (45%)	53 (46%)	30 (26%)	46 (40%)
Fish	16754	66 (0.39%)	129 (0.77%)	41 (0.24%)	62 (0.37%)
Seabirds	312	67 (21%)	80 (26%)	119 (38%)	131 (44%)
Marine Reptiles	70	7 (10%)	8 (11.4%)	6 (8.6%)	6 (8.6%)
Brackish Turtles	6	n/a	1 (16.7%)	n/a	0



Photo Credit: tedxgp/Flickr



Photo Credit: AAP Image/Department of the Environment and Heritage/Melbourne Zoo

An underwater photograph showing a coral reef heavily littered with marine debris. A large, translucent green plastic bottle is prominent in the upper right. Other debris includes brown sticks, white plastic fragments, and various pieces of trash scattered across the seabed. Small fish are visible swimming in the blue water above the debris.

COP Decision on marine debris

COP 11 Decision XI/18 A, para.26 (c)

- (a) Invite Parties, other Governments and relevant organizations, including the Convention on Migratory Species, **to submit information on the impacts of marine debris on marine and coastal biodiversity and habitats;**
- (b) **Compile and synthesize submissions** by Parties, other Governments and relevant organizations, along with additional scientific and technical information, as input to an expert workshop;
- (c) **Organize an expert workshop to prepare practical guidance on preventing and mitigating the significant adverse impacts of marine debris on marine and coastal biodiversity and habitats** that can be applied by Parties and other Governments in their implementation of the programme of work on marine and coastal biodiversity;
- (d) Submit the compilation/synthesis referred to in subparagraph 26(b) above, and the practical guidance referred to in subparagraph 26(c) above, for consideration by a meeting of the Subsidiary Body prior to the twelfth meeting of the Conference of the Parties;

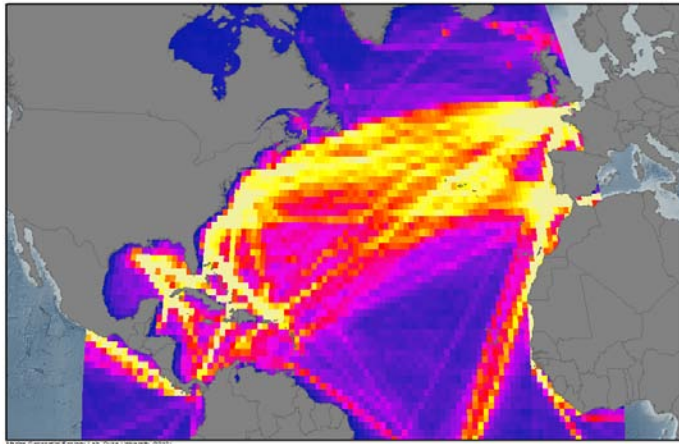
CBD Expert Workshop to Prepare Practical Guidance on Preventing and Mitigating the Significant Adverse Impacts of Marine Debris on Marine and Coastal Biodiversity

2 - 4 December 2014 - Baltimore, United States of America

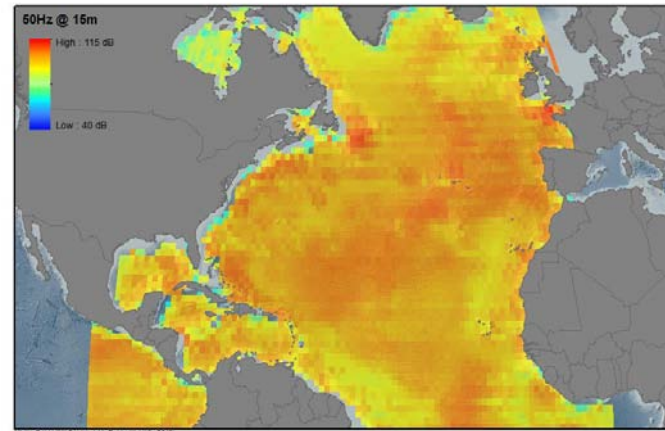
- Reviewed the impacts of marine debris on marine and coastal biodiversity
- Developed elements of practical guidance on preventing and mitigating significant adverse impacts on marine and coastal biodiversity and habitats
- Addressed both land-based and sea-based sources of debris
- Outcomes will be submitted to the CBD Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) for its consideration at its twentieth meeting in 2016
- We will also be refining the background study that was produced for this workshop and releasing it as a Technical Series Report

Underwater Noise and Marine Biodiversity

- Sound is a primary sensory medium for many marine animals
- Main sources: Shipping, military sonar, seismic surveys, offshore construction
- Main types of noise impacts for marine fauna
 - Physical damage to tissues and organs; Temporary or permanent hearing damage; Behavioural effects; Masking of important sounds or cues; Mortality in some cases



Global ship traffic in North Atlantic, Oct 2004 to Sept 2005 (as reported in Halpern et al., 2008)



Annual Average Ambient Noise from commercial shipping (SoundMap project)

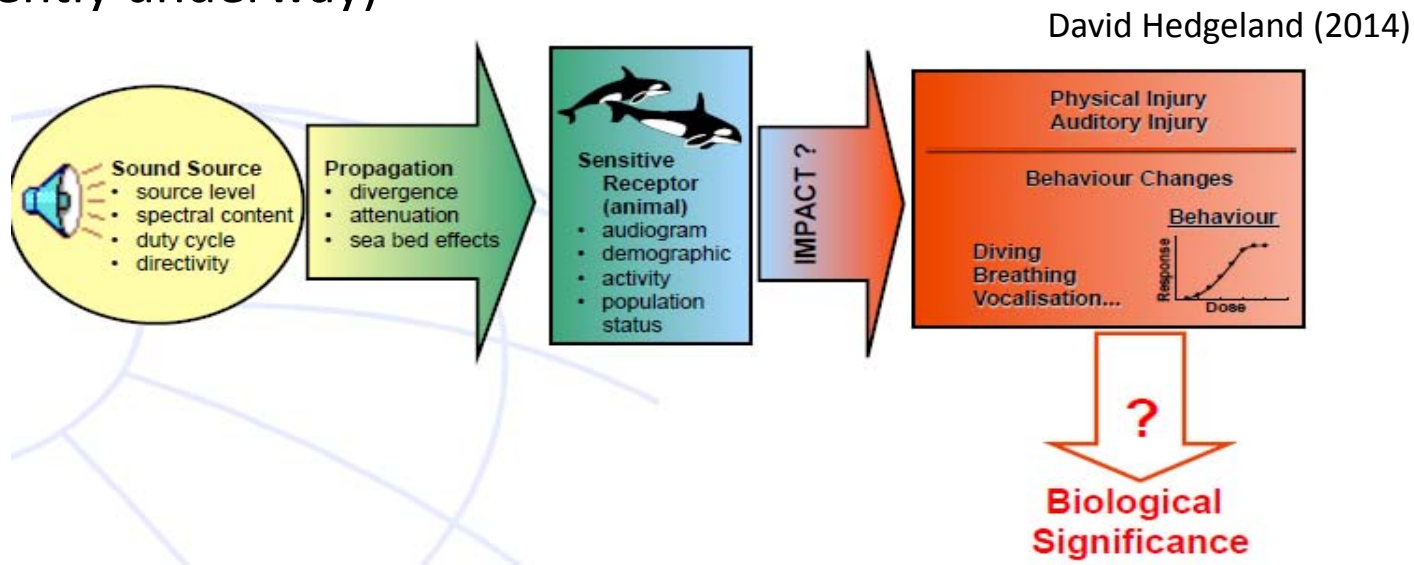
Expert Workshop on Underwater Noise

- Held 25-27 February 2014, London, in collaboration with IMO with support from European Commission
- Requested by COP Decision XI/18
- Workshop gathered experts from around the world to:
 - Discuss state of knowledge on the role of sound in biodiversity and ecosystems, major trends in underwater noise and potential impacts on biodiversity and ecosystems
 - Synthesize guidance on means to address knowledge gaps and to minimize and mitigate significant adverse impacts

Underwater Noise and Marine Biodiversity

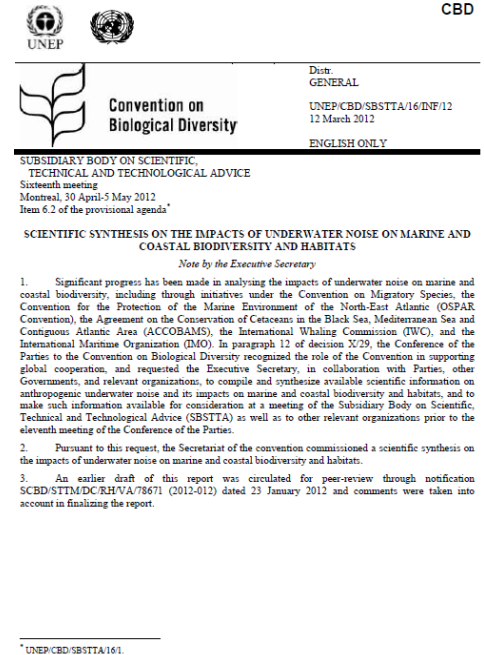
At its 12th meeting, CBD COP (decision XII/23):

- Encouraged Parties, other Governments and other relevant stakeholders to take appropriate measures to minimize and mitigate the potential significant adverse impacts of noise, based on expert workshop guidance
- Requested Secretariat to compile and synthesize relevant scientific and technical information, as well as information on related measures taken by governments and competent organizations (currently underway)



Forthcoming CBD Technical Series Report on Underwater Noise and Marine Biodiversity

- CBD Secretariat currently developing Technical Series report on mitigating impacts of anthropogenic underwater noise on marine biodiversity
- Will build on:
 - Workshop background document
 - Submissions from CBD Parties and relevant organizations
 - SBSTTA 16 information document: Scientific Synthesis On The Impacts Of Underwater Noise On Marine And Coastal Biodiversity And Habitats





CAPACITY BUILDING for implementing the Programme of Work on Protected Areas (PoWPA)



What capacity building has been undertaken for the PoWPA by SCBD?



- 1. Regional and sub regional capacity building workshops**
- 2. Sub regional technical clinics, expert workshops, training of trainers**
- 3. Documents, guides, other materials**
- 4. Information clearinghouses**
- 5. E-learning modules on all the goals of the PoWPA, plus themes such as MPAs and Climate Change**
- 6. CBD PoWPA website (supporting information, tools, databases, success stories)**





PoWPA Workshops

Have covered themes such as:

- sustainable financing (GEF and other sources)
- Integrating PA into wider landscape, seascape and sectors
- MPAs
- Governance
- Management effectiveness
- PA planning
- Integrating climate change
- Representativity (through gap analysis)
- Many others



PoWPA Website - reporting



Global Implementation

This page presents overall global progress in implementing the Programme of Work on Protected Areas. The map below shows the coverage of protected areas around the world as reported by the World Database on Protected Areas and accessed through the Millennium Development Goals Database. The bar chart below the map shows progress on major goals of the Programme of Work on Protected Areas, based on best available information from over 100 countries. Data sources included the 4th national reports, as well as a series of CBD regional workshops, in which countries provided detailed status reports on their implementation of the Programme of Work. Available national implementation reports are accessible below the bar chart through a link to individual country profiles highlighting implementation progress and success. Data on this page will be updated automatically as countries provide additional reporting information.

756102 km²
TOTAL EARTH PROTECTED

12.9%
TERRESTRIAL AREA PROTECTED

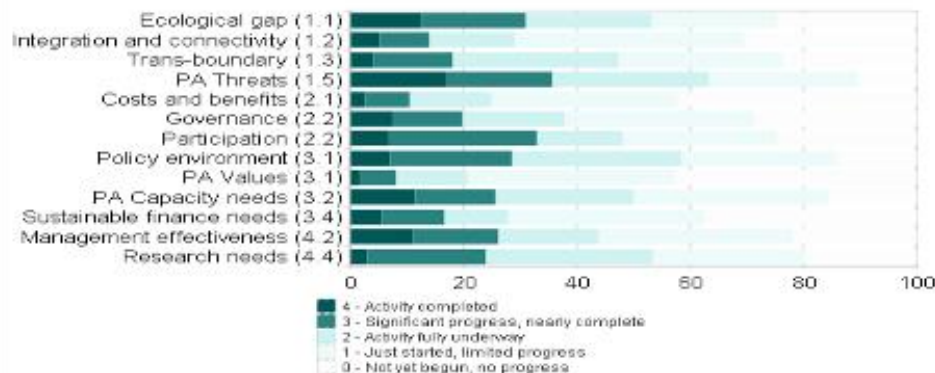
6.3%
TERRITORIAL WATERS PROTECTED

11.9%
TERRITORIAL AREA AND TERRITORIAL WATERS PROTECTED

Source: WOPA



Global summary of PoWPA implementation



See implementation report

Africa





E-learning curricula

There is no shortage of guides, case studies, methodologies and other materials to help implement the Programme of Work on Protected Areas. In fact, there is so much material that it can be overwhelming to read everything. The Secretariat has developed concise learning modules for each goal of the Programme of Work. These modules are like short courses which take approximately an hour each, providing an overview of key terms, concepts, resources and approaches.

The online courses are accessible by clicking the 'take the course' button. This takes the user to a site to take free courses, including exercises, additional learning materials, and discussion forums with other learners.



Introductory Module

This module provides an introduction to the terminology, structures and elements of the Programme of Work on Protected Areas.



Module 1: Protected area network design

This module covers aspects related to the design of a national protected area network (POWPA Goal 1.1), including instructions on how to conduct an ecological gap assessment.

[Take the course](#)



Module 2: Protected area integration

This module covers aspects related to integrating protected areas into the wider landscape, landscape and strategic (POWPA Goal 1.1), including the development of conservation corridors, and mainstreaming protected areas into other sectors.

[Take the course](#)



Module 3: Transboundary protected areas and regional networks

This module covers aspects related to transboundary protected areas and regional networks (POWPA Goal 1.3), including the establishment, planning, management and assessment of transboundary areas.

[Take the course](#)



Module 4: Management planning

This module covers aspects related to management planning (POWPA Goal 1.4), including instructions on how to integrate climate change adaptation into management plans.

[Take the course](#)



Module 5: Protected area threats

This module covers aspects related to protected area threats (POWPA Goal 1.5), including the prevention and mitigation of invasive species, and conducting threat assessments.

[Take the course](#)



Module 6: Protected area governance, equity and benefit sharing

This module covers aspects related to governance, equity and benefit sharing (POWPA Goal 2.1), including best practices for promoting inclusive forms of governance.

[Take the course](#)



Module 7: Protected area participation

This module covers aspects related to protected area participation (POWPA Goal 2.2), including participation of indigenous and local communities.

[Take the course](#)



Module 8: Protected area policy environment

This module covers aspects related to the protected area policy environment (POWPA Goal 3.1), including protected area policies, initiatives, and legal frameworks.

[Take the course](#)



Module 9: Protected area capacity

This module covers aspects related to protected area capacity (POWPA Goal 3.2), including human resources, knowledge, and development capacity, and reviewing progress.

[Take the course](#)



Module 10: Appropriate technology

This module covers aspects related to appropriate technology (POWPA Goal 3.3), including the use of GIS and remote sensing.

[Take the course](#)



Module 11: Sustainable finance

This module covers aspects related to sustainable finance (POWPA Goal 3.4), including business planning, addressing financial needs, and developing a sustainable finance plan.

[Take the course](#)



Module 12: Education



Module 13: Minimum



Module 14:



Module 15:



2010 International Year of Biodiversity



Life in harmony, into the future
いのちの共生を、未来へ
COP 10 / MOP 5

Proposal to update the specific workplan on coral bleaching (appendix 1 of annex I to decision VII/5)

Priority Actions to Achieve Aichi Biodiversity Target 10 for Coral Reefs and Closely Associated Ecosystems

adopted by COP 12

**Jihyun Lee, CBD Secretariat
(Technical support provided by Dr. Simon Harding)**



**Convention on
Biological Diversity**

Staghorn coral in seagrass.

Photo: Florida Keys National Marine Sanctuary/NOAA.

Aichi Targets

Strategic goal A. Address the underlying causes of biodiversity loss

Target 1: By 2020, People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2: By 2020, biodiversity values are integrated into national and local development and poverty reduction strategies and planning processes and national

Target 3: By 2020, incentives, including subsidies, harmful to biodiversity are eliminated,

Target 4: By 2020, Governments, business and financial institutions, and the private sector have plans for sustainable production and consumption that reduce the impacts resource use will have on biodiversity.

Strategic goal B. Reduce the direct pressures on biodiversity and promote sustainable use

Target 5: By 2020, the rate of loss of forests, is at least halved and where possible, brought to zero, and degradation and fragmentation reduced.

Target 6: By 2020 all stocks managed sustainably, and overfishing is avoided ..

Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8: By 2020, pollution, including marine pollution, has been brought to levels that do not compromise the sustainable function and biodiversity.

Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Strategic goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas are conserved through systems of protected areas.....

Target 12: By 2020 the extinction of known threatened species has been prevented, including those most in need.

, particularly of those most in need.

cultivated plants and farmed and domesticated animals is maintained,

from biodiversity and ecosystem

essential services, including services

the contribution of biodiversity to ecosystem health through conservation and restoration, management of degraded ecosystems, and Access and Benefits Sharing is in

through participatory planning, building

adopted as a policy instrument, effective, participatory and updated

innovations and practices of indigenous peoples and their customary use, are respected.

Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

Target 20: By 2020, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources,, should increase substantially .

COP 12: Pyeongchang, Republic of Korea, 6-17 October 2014

Marine and Coastal Biodiversity:

- Ecologically or Biologically Significant Marine Areas (EBSAs)
- **Priority Action Plan for Target 10 on Coral Reefs and Associated Ecosystems**
- Updated Synthesis on the Impacts of Ocean Acidification on Marine Biodiversity
- Guidance on addressing impacts of underwater noise on marine biodiversity
- Marine spatial planning and the training initiative (Sustainable Ocean Initiative)



Biodiversity for Sustainable Development

- Highest level of biodiversity
- 850 million people (12 % of world population) are dependent

Coral Reefs and Associated Ecosystems (e.g mangroves and seagrass beds)



Convention on
Biological Diversity



Ocean Warming

Ocean Acidification

Tropical Storms

Rising Sea levels

Disease

Sedimentation

**Uncontrolled coastal
development**

Nutrients/Pollution

Destructive fishing practices

Overfishing

**Most
Stressed,,,**

**Extremely
Vulnerable,,,**

Ocean Warming



Ocean Acidification



Tropical Storms



Rising Sea levels



Disease



Sedimentation



**Uncontrolled coastal
development**



Nutrients/Pollution



Destructive fishing practices



Overfishing



Specific work plan on coral bleaching

adopted in 2004 (Decision VII/5) as Appendix 1 of Annex 1 (the elaborated programme of work on marine and coastal biological diversity, 2004-2010)

Aichi Target 10

(decision X/2, 2010):

*'By 2015, the **multiple anthropogenic pressures** on coral reefs, and other vulnerable ecosystems impacted by **climate change or ocean acidification** are minimized, so as to maintain their integrity and functioning'.*

Photo credit: NOAA



Decision XI/18 A, para 11, 13:
COP requested the Executive Secretary to develop proposals to update the specific work plan on coral bleaching, addressing following needs:

- **vulnerability of corals to multiple stressors**
- **Plan proactively applying ecosystem-based adaptation measures**
- **Manage coral reefs as socio-ecological systems**
- **Formulate adaptation strategies that aim to enhance the resilience of ecosystems**



Photo credit: NOAA

Inputs to drafting Priority Actions for Target 10

- Initial compilation from national reports (UNEP/CBD/SBSTTA/16/INF/11)
- Submissions from Parties, other Governments, and ICRI, UNEP, and other relevant organizations
- Compilation of scientific studies (UNEP/CBD/SBSTTA/18/INF/7/Rev.1)
- Global framework of actions and studies:
 - ICRI Framework for Action (ICRI, 2013)
 - GLOBE Action Plan for Coral Reefs (2010)
 - Reefs at Risk Revisited (Burke et al., 2011)

Focus of Priority Actions for Target 10 on corals and associated ecosystems (annex to COP 12 decision on marine biodiversity-other matters)



- Consolidate and further strengthen current efforts at local, national, regional and global levels to **manage coral reefs as socio-ecological systems** undergoing change due to the interactive effects of multiple stressors
- Reduce the impacts of multiple stressors, in particular by **enhancing the resilience of coral reefs and closely associated ecosystems** through ecosystem based adaptation



Focus of Priority Actions for Target 10 on corals and associated ecosystems (annex to COP 12 decision on marine biodiversity-other matters)

- Sustainably manage fisheries for coral reefs and closely associated ecosystems
- Manage land-based and sea-based sources of pollution
- Increase spatial coverage and effectiveness of marine and coastal protected and managed areas in coral reefs and closely associated ecosystems
- Manage coastal development
- Improve adaptive capacity of coral reef-based socio-ecological systems within local context
- Integrated watershed and marine management
- Capacity-building
- Sustainable financing
- Research and monitoring

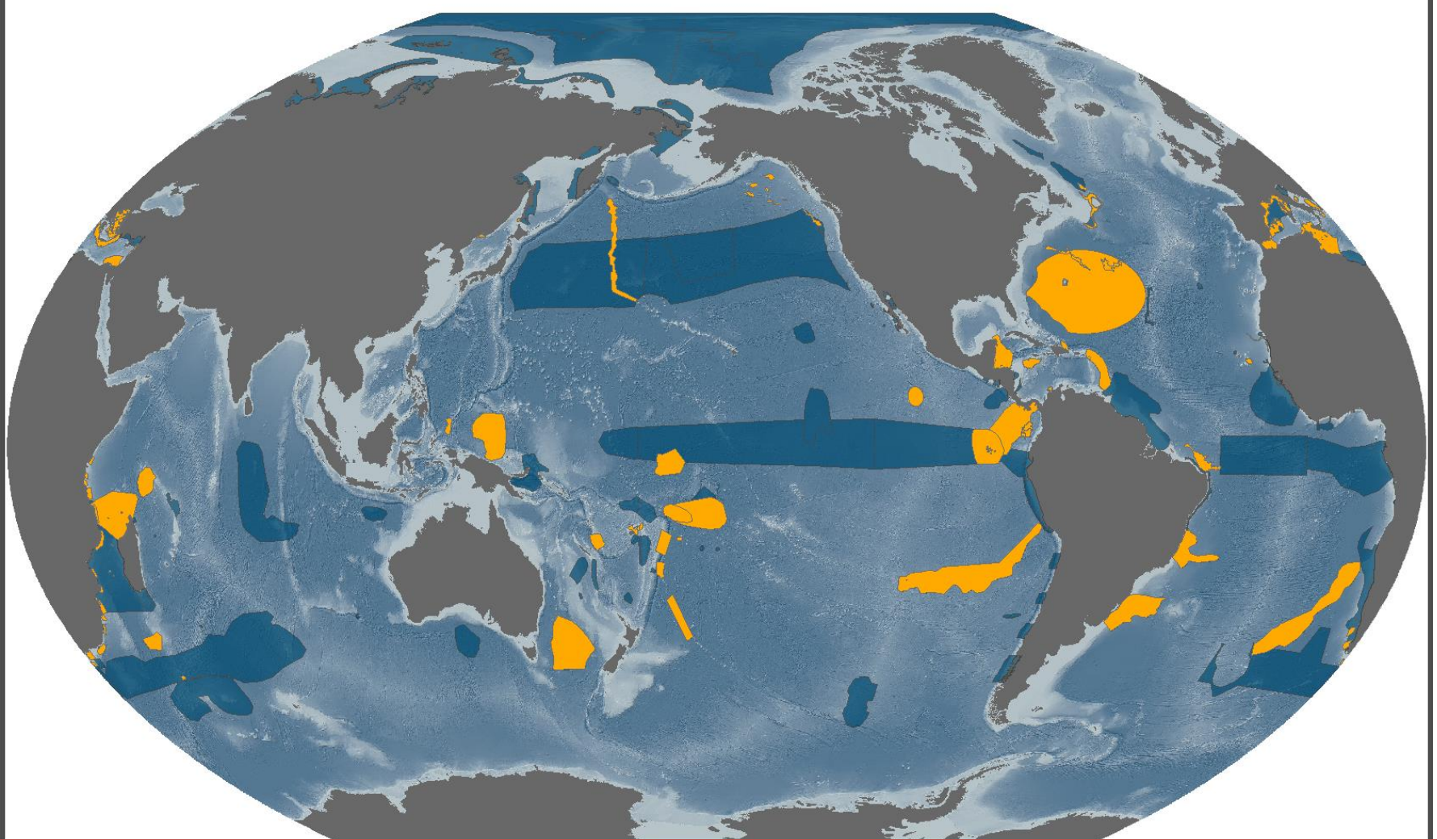


Focus of draft proposal for updating specific workplan (annex to COP 12 decision on marine biodiversity- other matters)

■ Clock is ticking

- Only a few decades are left before the predicted onset of highly damaging impacts of global stressors on coral reefs (at current emission rates)
- Priority Actions aims at **minimizing existing high-impact local stressors and increasing overall resilience**

Description of EBSA areas containing information on coral reef ecosystems (88 areas out of total 207 areas described for EBSA criteria by regional workshops)



The designations employed and the presentation of material in these slides do not imply the expression of any opinion whatsoever on the part of the Secretariat concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

SUSTAINABLE OCEAN INITIATIVE

*A global platform to build partnerships
and enhance capacity to achieve the
Aichi Biodiversity Targets related to
marine and coastal biodiversity*

*"The time to act is now, if we are to ensure a healthy
and sustainable future for the environments that
cover three-quarters of the surface of our globe—the
environments that make ours a beautiful, blue planet."*

*—One Ocean—Many Worlds of Life, CBD booklet on 2012
International Day for Biological Diversity: Marine Biodiversity*



Convention on
Biological Diversity



SOI Background and SOI Action Plan

Jihyun Lee
CBD Secretariat

COP 10 Adoption of the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets (Nagoya, Oct 2010)



Challenges ahead of us : weak governance, capacity disparity, inadequate information base for decision-making, etc

COP 10 and COP 11 requests for capacity development for conservation and sustainable use of marine biodiversity

Decision XI/17 Para 19 - requests the Executive Secretary to translate the **EBSA training**

Decision XI/18 C, Para 2 (g) - **Organize training workshops**, subject to availability of financial resources, closely linked to existing capacity-building efforts on marine protected areas and ecologically or biologically significant marine areas, in order to increase the capacity of Parties, especially developing country Parties **to use marine spatial planning**

Facilitating implementation at the national level toward achieving Aichi Biodiversity Targets

application of the voluntary guidelines, to compile information on experience in applying the voluntary guidelines and to report on progress to a meeting of the Conference of the Parties.

bleaching and ocean acidification

economies in transition, as well as through relevant regional initiatives,



Sustainable Ocean Initiative – Mission

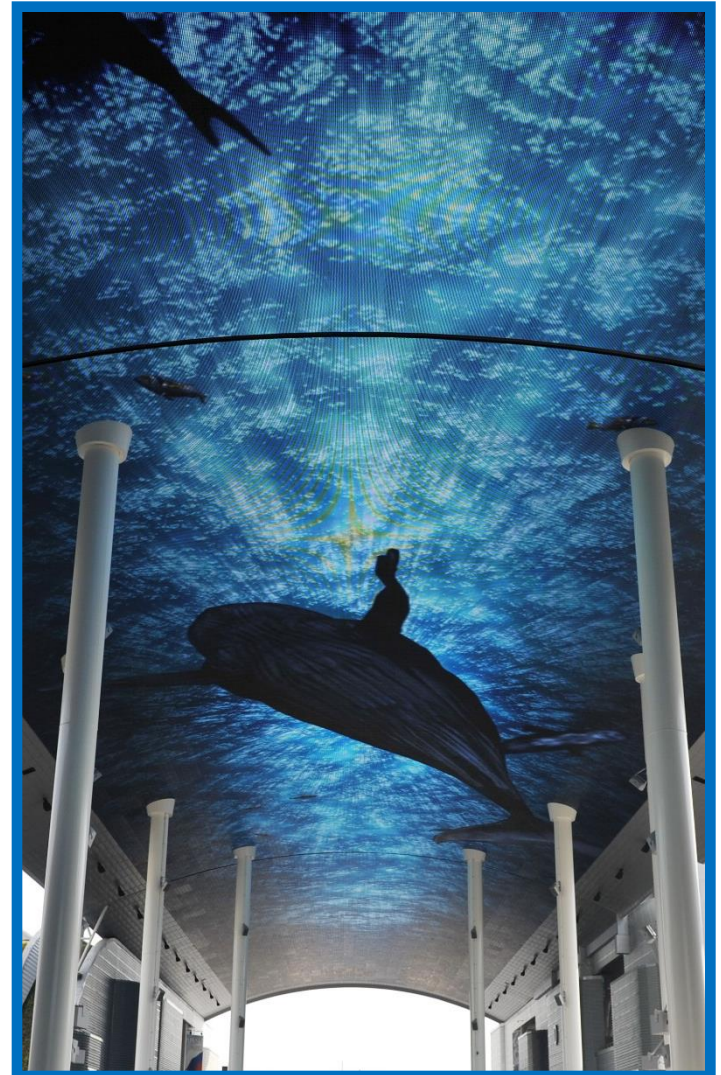
- A focus on facilitating achievement of the Aichi Biodiversity Targets on marine and coastal biodiversity, particularly **targets 6, 10 and 11**, in a holistic manner
- A strategic, action-oriented approach that will support **on-the-ground implementation priorities**
- Reliance on **partnerships and sharing at various scales** (local, regional and global) and between different sectors, groups and stakeholders including between biodiversity and fisheries sectors
- A focus on providing **targeted capacity development** at all levels throughout its activities
- Achieving a **balance between sustainable use and conservation** and the promotion of flexible and diverse approaches towards this end

Proposed Activities for SOI

- ☐ Facilitating **information sharing and exchange**, as well as learning from both successful and unsuccessful experiences;
- ☐ Creating partnerships that can provide for **targeted capacity-building and technical assistance**
- ☐ Providing for a **two-way communication** between global policy and scientific communities and local stakeholders;
- ☐ Improving the **scientific basis for implementation**, including through improved technologies, cooperative research efforts, objective monitoring, results-based initiatives, open access data and analysis, and integration of local knowledge and science; and
- ☐ **Facilitate monitoring progress** towards the Aichi Biodiversity Targets on marine and coastal biodiversity (particularly targets 6, 10 and 11)

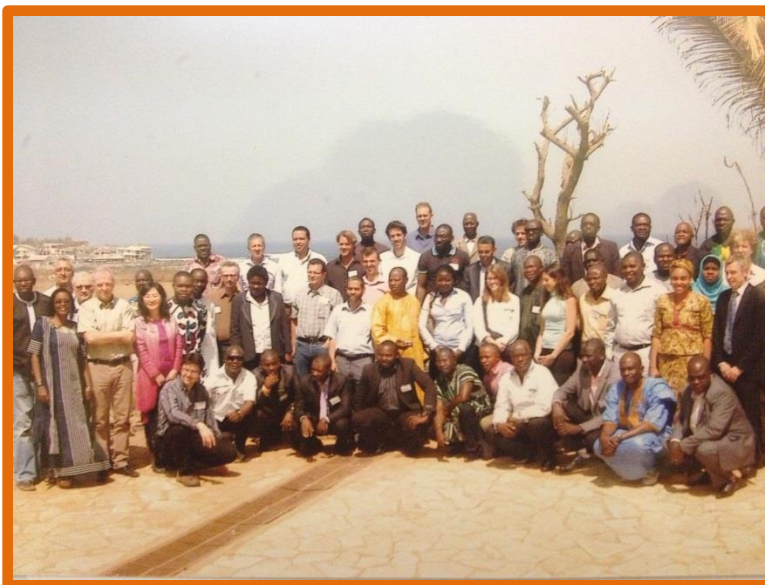
SOI : Programme Development and Launching (2011-2012)

- ❑ First consultation meeting for developing Sustainable Ocean Initiative (24 October 2010, COP 10 meeting, Nagoya, Japan)
- ❑ SOI launching and programme development meeting (2-4 August 2011, Kanazawa, Japan)
- ❑ SOI Side Event at 16th meeting of the Convention's Subsidiary Body on Scientific, Technical and Technological Advice (2 May 2012, Montreal)
- ❑ SOI High-level Meeting at Int'l Ocean Expo (5 June 2012, Yeosu, RO Korea)
- ❑ SOI High-level Side Event at 11th meeting of the Conference of the Parties (17 October, 2012, Hyderabad)



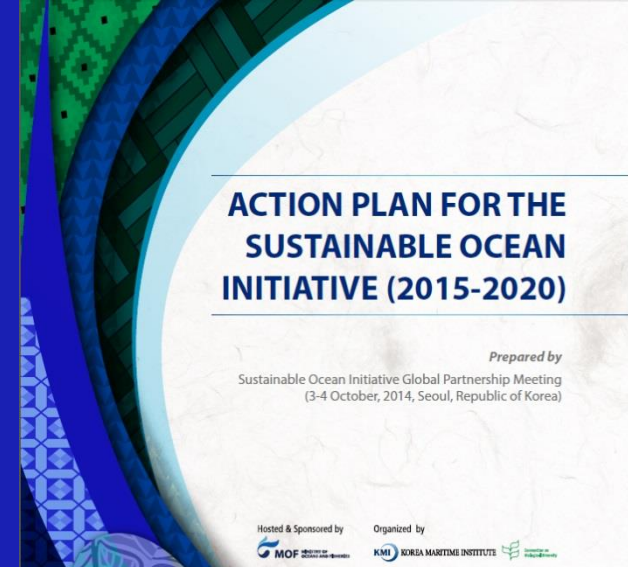
SOI : Regional Implementation (2013)

- ❑ SOI Capacity Building Workshop for West Africa (4- 8 February, 2013, Dakar, Senegal)
- ❑ SOI Capacity Building Workshop for East Asia, South Asia and Southeast Asia (9-13 December, 2013, Guangzhou, China)



Action Plan for the Sustainable Ocean Initiative (2015-2020)

*Presented at the SOI High-level Meeting at COP 12, Oct 2014,
Chaired by Minister of Ocean and Fisheries of RO Korea*



Baseline:
*existing
commitments,
resources and
opportunities*

Global and
regional
commitments
on ocean
sustainability

Experiences
and lessons
learned from
sectoral or
cross-sectoral
management
efforts

Growing body of
scientific
knowledge and
tools on marine
biodiversity
conservation and
sustainable use

Training
Initiatives at
national,
regional or
global levels

Urgent need to enhance on-the-ground impacts and outcomes

**SUSTAINABLE
OCEAN
INITIATIVE**

Aligning
goals and
initiatives

Creating
Synergies

Leveraging
resources

Identifying
implementation
opportunities

Targeted
cross-
sectoral
training

Policy-
relevant
information

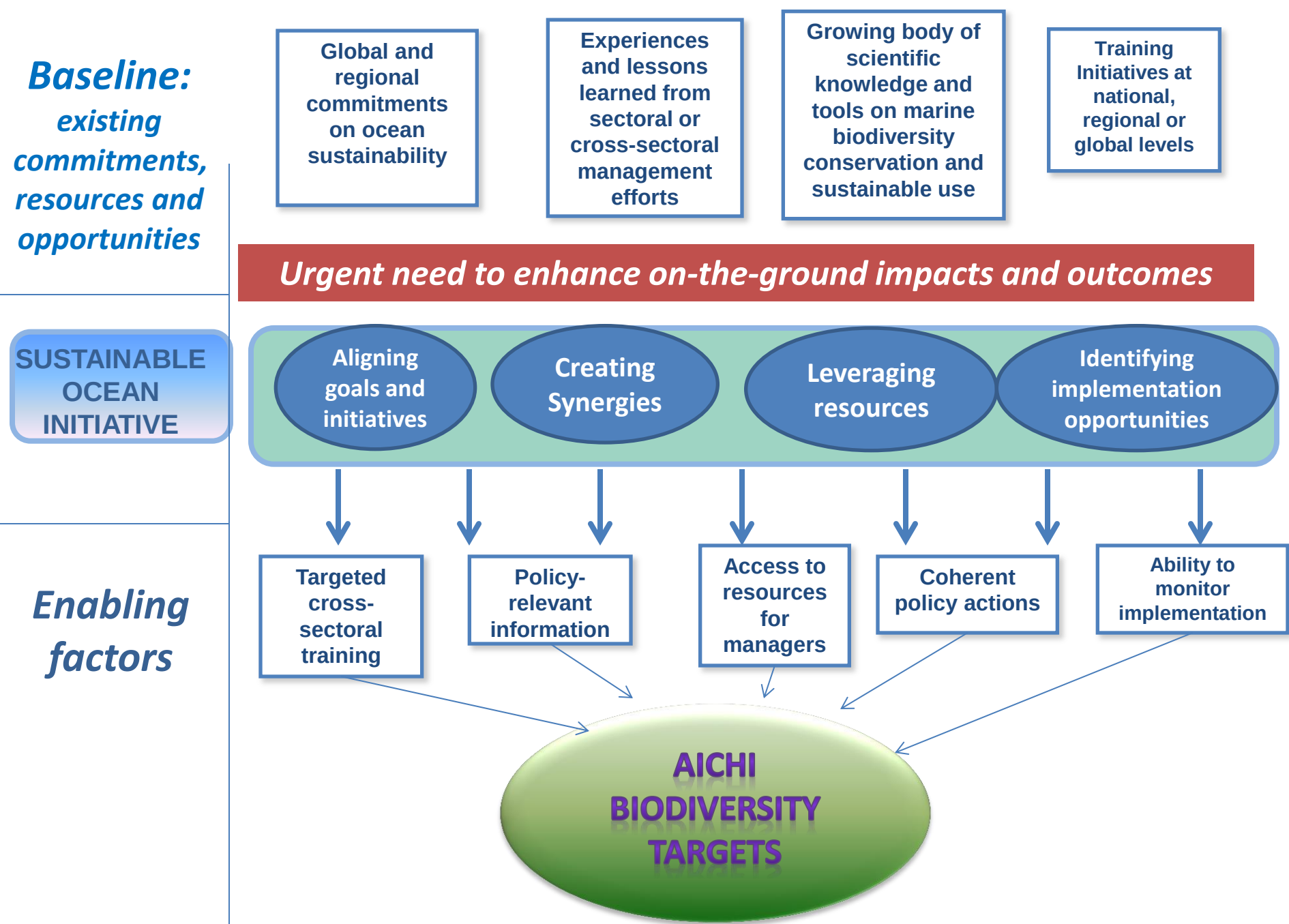
Access to
resources
for
managers

Coherent
policy actions

Ability to
monitor
implementation

***Enabling
factors***

**AICHI
BIODIVERSITY
TARGETS**





SOI Action Plan :
Framework of facilitating implementation and partnership

Activities Undertaken/ Planned Activities

Global Implementation

- ❑ SOI Programme Development Meeting (August 2011, Kanazawa, Japan)
- ❑ SOI High-level Meeting at Int'l Ocean Expo (June 2012, Yeosu, Republic of Korea)
- ❑ SOI High-level Side Event at CBD COP 11 meeting of the Conference of the Parties (October 2012, Hyderabad, India)
- ❑ SOI/Lifeweb Financial Partnership Meeting during IMPAC 3 (October 2013, Marseille, France)

Regional Implementation

- ❑ SOI Capacity Building Workshop for West Africa (4- 8 February, 2013, Dakar, Senegal)
- ❑ SOI Capacity Building Workshop for East Asia, South Asia and Southeast Asia (9-13 December, 2013, Guangzhou, China)

Global Partnership/ Training of Trainers

SOI Global Partnership Meeting
3 – 4 October 2014, Seoul, Republic of Korea

SOI Training of Trainers Workshop
July 2015, Yeosu, RO Korea

Regional Capacity Building

SOI Capacity-Building Workshop for South America
23 – 27 February 2015, Lima, Perú

Sustainable Ocean Initiative (SOI) Capacity-Building
Workshop for West Indian Ocean (East Africa)
2015, Venue (TBD)

Sustainable Ocean Initiative (SOI) Capacity-Building
Workshop for the South Pacific
June 2016, French Polynesia

Sustainable Ocean Initiative (SOI) Capacity-Building
Workshop for Wider-Caribbean and Central America
Sep 2016, Mexico (TBC)



Engaging Policy Makers

SOI High-Level Meeting at CBD COP 12
16 October 2014, Pyeongchang, Republic of Korea

SOI National Trainings and Learning Exchanges

SOI National Training in South Pacific
June 2015, TBD

SOI National Training in West Africa 2015, Venue
September 2015, Namibia



Publications and Information-Sharing

Training Manual on *Incorporation of Traditional Knowledge into the description of the Ecologically or Biologically Significant Areas (EBSAs)*

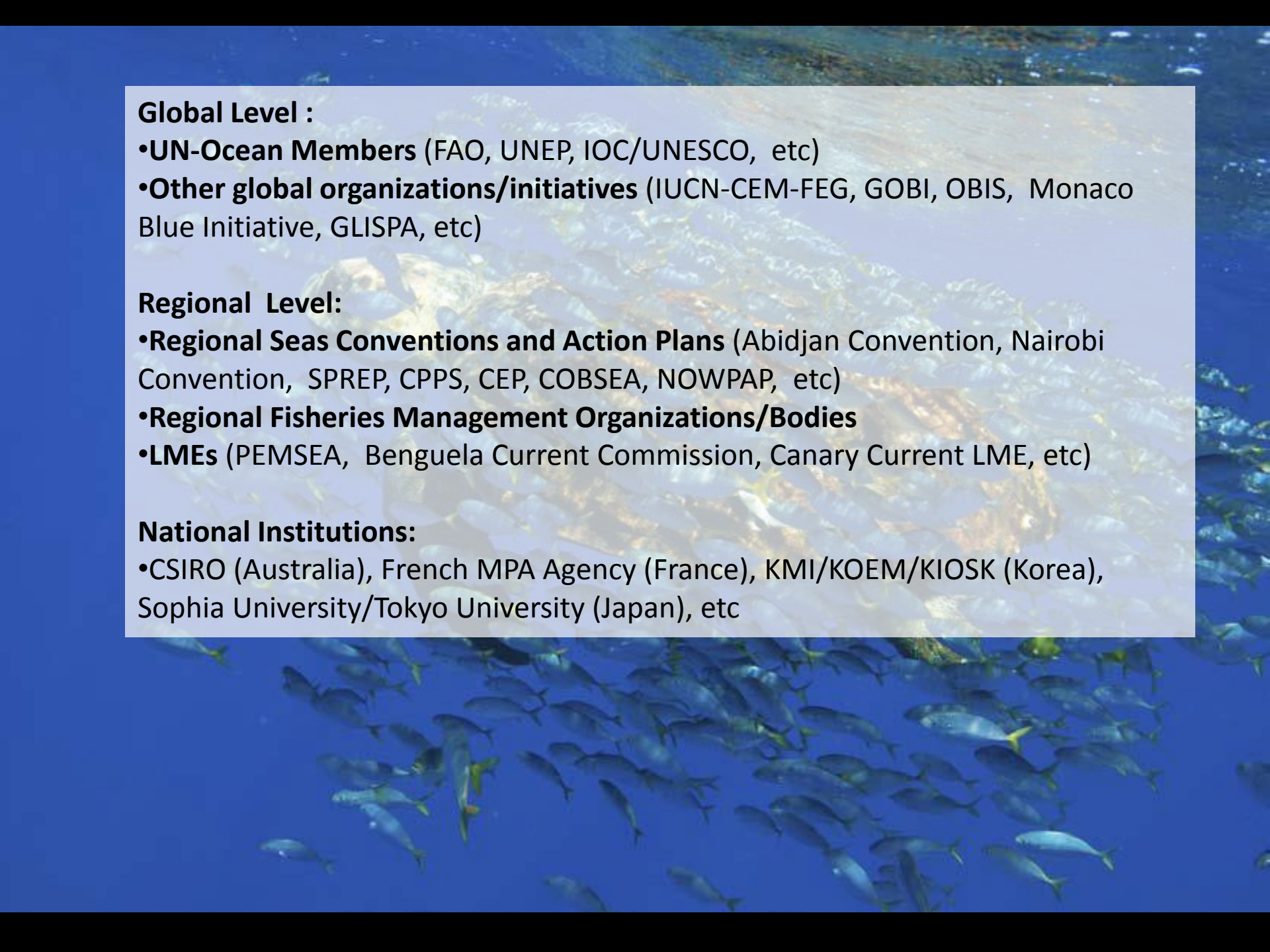
Publication on *Practical Guidance on Implementing Integrated Coastal Management in the Context of Achieving the Aichi Biodiversity Targets*

Sustainable Ocean Initiative (SOI) Website and
Online Information-Sharing Mechanism



For further information, contact: secretariat@cbd.int





Global Level :

- **UN-Ocean Members** (FAO, UNEP, IOC/UNESCO, etc)
- **Other global organizations/initiatives** (IUCN-CEM-FEG, GOBI, OBIS, Monaco Blue Initiative, GLISPA, etc)

Regional Level:

- **Regional Seas Conventions and Action Plans** (Abidjan Convention, Nairobi Convention, SPREP, CPPS, CEP, COBSEA, NOWPAP, etc)
- **Regional Fisheries Management Organizations/Bodies**
- **LMEs** (PEMSEA, Benguela Current Commission, Canary Current LME, etc)

National Institutions:

- **CSIRO** (Australia), **French MPA Agency** (France), **KMI/KOEM/KIOSK** (Korea), **Sophia University/Tokyo University** (Japan), etc