CBD's Relevant Work on Marine and Coastal Biodiversity

Jihyun Lee and Joe Appiott, CBD Secretariat
Eduardo Klein, OBIS
GBO-4: A mid-term assessment of progress towards the implementation of the Strategic Plan for Biodiversity 2011-2020
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?
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.**

![Graph showing deforestation rates](image)

- **Deforestation rates**
  - *Lower is better*

**Box 6.1. Sustainability in UK Fisheries**

![Graph showing UK fish stocks harvested sustainably](image)

- **UK fish stocks harvested sustainably**
  - *Higher is better*

**Box 15.1. Ecosystem restoration in China**

![Graph showing area changes](image)

- **Area (thousand km²)**
  - *Higher is better*
Assessment of progress towards the Aichi Targets in the “dashboard” of the GBO-4 Executive Summary

1. Moving away from Target
2. No progress towards target
3. Progress towards target, but not sufficient to achieve it
4. On track to achieve Target
5. On track to exceed Target

Insufficient information to evaluate progress
No clear evaluation
Overview of the “Dashboard” for the Aichi Targets

**Target elements**

### Underlying Causes

**A**

1. 

2. 

3. 

4. 

5. 

6. 

7. 

8. No clear evaluation

9. 

10. No clear evaluation

### Direct pressures

**B**

11. 

12. 

13. 

14. 

15. 

16. 

17. 

18. 

19. 

20. 

**Target elements**

**C**

11. 

12. 

13. 

14. 

15. 

16. 

17. 

18. 

19. 

20. 

No clear evaluation

Enhance benefits

Status of biodiversity

Enhance Implementation
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?

- Marine Protected Areas?
- Fishing Closure?
- Jurisdictional matters?

Inherent value of marine biodiversity

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 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 guidance on EBSAs (decision X/29, para 36)

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)

<table>
<thead>
<tr>
<th>CBD Regional Workshop on EBSAs</th>
<th>Date</th>
<th>Host Country</th>
<th>No. of Countries</th>
<th>No. of Reg’l &amp; Int’l Org Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western South Pacific</td>
<td>Nov 2011</td>
<td>Fiji</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Wider Caribbean &amp; Western Mid-Atlantic</td>
<td>Feb 2012</td>
<td>Brazil</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td>Southern Indian Ocean</td>
<td>July 2012</td>
<td>Mauritius</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Eastern Tropical &amp; Temperate Pacific</td>
<td>Aug 2012</td>
<td>Ecuador</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>North Pacific</td>
<td>Feb 2013</td>
<td>Russia</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>South-Eastern Atlantic</td>
<td>April 2013</td>
<td>Namibia</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Arctic</td>
<td>March 2014</td>
<td>Finland</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>North-west Atlantic</td>
<td>March 2014</td>
<td>Canada</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Mediterranean</td>
<td>April 2014</td>
<td>Spain</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>122</strong></td>
<td><strong>112</strong></td>
</tr>
</tbody>
</table>

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. Some information on the map is yet to be finalized. This is NOT for QUOTE or 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.
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)

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


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
   includes global initiatives and policy
2. Current awareness
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
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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

<table>
<thead>
<tr>
<th>Species Group</th>
<th>Total number of known species</th>
<th>Number of species with entanglement records</th>
<th>Number of species with ingestion records</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2014</td>
<td>2012</td>
</tr>
<tr>
<td>Marine Mammals</td>
<td>115</td>
<td>52 (45%)</td>
<td>53 (46%)</td>
</tr>
<tr>
<td>Fish</td>
<td>16754</td>
<td>66 (0.39%)</td>
<td>129 (0.77%)</td>
</tr>
<tr>
<td>Seabirds</td>
<td>312</td>
<td>67 (21%)</td>
<td>80 (26%)</td>
</tr>
<tr>
<td>Marine Reptiles</td>
<td>70</td>
<td>7 (10%)</td>
<td>8 (11.4%)</td>
</tr>
<tr>
<td>Brackish Turtles</td>
<td>6</td>
<td>n/a</td>
<td>1 (16.7%)</td>
</tr>
</tbody>
</table>

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

Photo Credit: NOAA
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

Photo Credit: NOAA
• 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
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
E-learning curricula

There is a need for well-documented, tested, validated methodologies and other tools to help implement the Programme of Action 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 approximately an hour each, providing an overview of key concepts, methods and approaches.

The online courses are accessible by clicking the Take the course links. The links to the course websites take the course reader to a whole set of resources, including exercises, additional learning materials, and discussions forums with other learners.

Module 1: Protected area network design

This module covers aspects related to the design of a national protected area network (POA; Goal 1.1), including the selection of an appropriate design approach. The module is divided into two sections: the design of a national protected area network and the development of the network.

Module 2: Protected area integration

This module covers aspects related to the integration of protected areas into the wider biodiversity conservation strategy (POA; Goal 2.3), including the development of collaborative partnerships with other sectors. The module is divided into three sections: the role of protected areas, the role of protected areas in environmental conservation, and the role of protected areas in social and economic development.

Module 3: Transboundary protected areas and regional networks

This module covers aspects related to the management of transboundary protected areas and regional networks (POA; Goal 3.1), including the development of collaborative partnerships with other sectors. The module is divided into two sections: the role of transboundary protected areas in regional conservation, and the role of transboundary protected areas in regional economic development.

Module 4: Management planning

This module covers aspects related to the development of management plans for protected areas (POA; Goal 4.1), including the selection of appropriate management strategies, and the development of management plans.

Module 5: Protected area threats

This module covers aspects related to the threats faced by protected areas (POA; Goal 5.1), including the identification of threats and the development of strategies to mitigate these threats.

Module 6: Protected area governance, equity and benefit sharing

This module covers aspects related to the governance of protected areas (POA; Goal 6.1), including the development of strategies to ensure equitable benefit sharing.

Module 7: Protected area participation

This module covers aspects related to the participation of stakeholders (POA; Goal 7.1), including the development of strategies to ensure broad and active participation.

Module 8: Protected area capacity

This module covers aspects related to the capacity of protected areas (POA; Goal 8.1), including the development of strategies to enhance capacity.

Module 9: Appropriate technology

This module covers aspects related to the development of appropriate technology (POA; Goal 9.1), including the development of strategies to enhance capacity.

Module 10: Sustainable finance

This module covers aspects related to the development of sustainable finance (POA; Goal 10.1), including the development of strategies to enhance capacity.

Module 11: Education

This module covers aspects related to the development of education (POA; Goal 11.1), including the development of strategies to enhance capacity.

Module 12: Minimum

This module covers aspects related to the development of minimum standards (POA; Goal 12.1), including the development of strategies to enhance capacity.

Module 13: Assent

This module covers aspects related to the development of assent (POA; Goal 13.1), including the development of strategies to enhance capacity.

Module 14: Assessment

This module covers aspects related to the development of assessment (POA; Goal 14.1), including the development of strategies to enhance capacity.

Module 15: Monitor

This module covers aspects related to the development of monitoring (POA; Goal 15.1), including the development of strategies to enhance capacity.
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)

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

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 accounts.
Target 3: By 2020, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed where policies exist.
Target 4: By 2020, Governments, business and stakeholders have plans for sustainable production and consumption and keep the impacts resource use within safe ecological limits.

Strategic goal B. Reduce the direct pressures on biodiversity and promote sustainable use
Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.
Target 6: By 2020 all stocks managed and harvested sustainably, so that overfishing is avoided and where stocks are overfished, rebuilding is underway.
Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.
Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem 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, particularly of those most in decline.
Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives is maintained.

Strategic goal D: Enhance the benefits to all from biodiversity and ecosystem services
Target 14: By 2020, ecosystems that provide essential services, including services for climate regulation, water supply, and other ecosystem services, are restored and safeguarded.
Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, including through participatory planning, and the Nagoya Protocol on Access and Benefits Sharing is in force and operational.
Target 16: By 2015, the Nagoya Protocol on Access and Benefits Sharing is in force and operational.

Strategic goal E. Enhance implementation through participatory planning, knowledge management and capacity building
Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated National Biodiversity Strategy and Action Plan.
Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities 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.
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)
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’.
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
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)
  - 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.
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.
Facilitating implementation at the national level toward achieving Aichi Biodiversity Targets

Decision XI/17, Para 19 - requests the Executive Secretary to translate the EBSA training manual and modules into the official United Nations languages, and to provide training workshops, subject to availability of financial resources, to Parties, especially developing country Parties, to use marine spatial planning.

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, in particular the least developed countries and small island developing States, to manage fisheries in order to prevent and reduce the overexploitation of marine species, with a focus on addressing sources of overfishing, and to compile information on experience in applying the voluntary guidelines and to report on progress to a meeting of the Conference of the Parties.

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

Decision XI/17, Para 12 - requests the Executive Secretary to prepare, in collaboration with the relevant international organizations, a manual and modules on the 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.

Decision XI/17, Para 22 - Urges Parties and competent bodies to manage fisheries and, depending on the situation in different regions, promote capacity-building workshops, including, as appropriate, the elements specified in paragraph 11 above, into regional or subregional capacity-building workshops.

Decision XI/18 A, Para 10 - Also notes the need for significant investment to increase the capacity of Parties, especially developing country Parties, in particular the least developed countries and small island developing States, to address the impacts of fisheries on biodiversity, indigenous and local communities.

Decision XI/18 B, Para 6 - Requests Parties, especially developing country Parties, to continue implementing the voluntary guidelines and to scale up the delivery of resilience assessments in order to discuss ways to prevent and reduce the impacts of climate-change impacts on coral reefs.

Decision XI/18 C, Para 20 - Invites the Executive Secretary to further collaborate with Parties, other Governments and competent organizations, as appropriate, to provide further assistance to Parties, especially developing country Parties, to continue implementing the voluntary guidelines and to scale up the delivery of resilience assessments.

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 address regional priorities of developing countries, in particular the least developed countries and small island developing States.

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, in particular the least developed countries and small island developing States, to manage fisheries in order to prevent and reduce the overexploitation of marine species, with a focus on addressing sources of overfishing, and to compile information on experience in applying the voluntary guidelines and to report on progress to a meeting of the Conference of the Parties.
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)

Presented at the SOI High-level Meeting at COP 12, Oct 2014, Chaired by Minster of Ocean and Fisheries of RO Korea
Baseline: existing commitments, resources and opportunities

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

SUSTAINABLE OCEAN INITIATIVE

Enabling factors

AICHI BIODIVERSITY TARGETS

- 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

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

Baseline: existing commitments, resources and opportunities

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

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

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
SOI Partners share
Common Vision
Coherent and/or Complementary Goals and Obj.
Commitment to share what they have (Knowledge, Expertise, Experiences, Human Resources, Financial Resources, Networks, Time, Logistic support, etc)
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