

Nagoya COP 10 Side Event, 19 October 2010

Event Title: Ocean acidification: the relevance of emerging knowledge for marine and coastal biodiversity policy

Event Description: Ocean acidification, as a direct consequence of increased carbon dioxide, presents a serious concern for marine and coastal biodiversity and habitats globally. An emerging body of research suggests that the effects of ocean acidification on marine organisms and ecosystems will be variable and complex. Many research questions remain regarding the biological and biogeochemical consequences of ocean acidification and the impacts of these changes on oceanic ecosystems and the services they provide.

In pursuance of decision IX/20 UNEP-WCMC has worked in collaboration with the CBD to compile and synthesise available scientific literature on ocean acidification and its impacts on marine biodiversity. The study outlines the changes in chemistry of the global oceans as a result of absorption of carbon dioxide from human activities. Of particular importance is the finding, that under current emission scenarios, potential disruptions could occur to large components of the marine food web as early as 2032, as surface waters of the highly productive Arctic and Southern Oceans become under-saturated with respect to carbonate minerals.

Building on the findings of the study, SBSTTA 14 recommendation XIV/3 requests the Executive Secretary of the CBD to continue efforts, in collaboration with relevant international organisations and scientific communities, to monitor and assess the impacts of ocean acidification on marine and coastal biodiversity, and to disseminate this information to raise awareness of these impacts among Parties, other governments and organisations. In this context, it is important to enhance the technical capacity of Parties to access and interpret the available science and knowledge, so that they can better integrate it into national and local marine and coastal management strategies and action plans in support of adaptation to the possible changes. This applies to the CBD Marine and Coastal Programme of Work as well as other relevant international processes, such as UNFCCC.

In line with the SBSTTA recommendation, which will be considered by COP 10, the objectives of this side event will be to:

- Raise awareness of ocean acidification and the implications for marine biodiversity;
- Demonstrate the progress made by international research efforts to understand the impacts of ocean acidification on species, ecosystems and the services they provide, and highlight emerging knowledge;
- Provide examples of how scientific knowledge on ocean acidification can be used to inform and guide national and local strategies and action plans, and relate capacity needs for implementation of the marine and coastal Programme of Work;
- Explore the integration of this critical issue in other relevant international processes (e.g. UNFCCC);
- Recommend possible cooperative approach to implement COP 10 decision on ocean acidification

This side event will facilitate access to information and knowledge resulting from important large scale observation and assessment efforts including the European Project on Ocean Acidification, the

Bio Acid research programme, and the Hotspot Ecosystem Research and Man's Impact on European Seas (HERMIONE) collaborative project, and will contextualise the research findings for policy and decision makers.

Draft Agenda

Tuesday 19th October 2010 - 13:15 – 14:45: Room 234B (Bldg 2 – 3rd Floor)

Chair: Dr. Patricio Bernal (GOBI)

Opening message: TBC (5 minute)

Launching of French version CBD Technical Series 46 on Scientific Synthesis of the Impacts of Ocean Acidification on Marine Biodiversity: Christophe Lefebvre (French National MPA Agency) (5 min)

Panel Presentations (10 minutes maximum):

Institution	Representative	Focus of Presentation
UNEP	Jacqueline Alder	Science of Ocean Acidification <ul style="list-style-type: none"> • How and why this is occurring • Status and trends in CO₂ distribution • Rate of change
Intergovernmental Oceanographic Commission of UNESCO	Keith Alverson	Scientific cooperation for ocean acidification assessment <ul style="list-style-type: none"> • Methods and approaches (scale) • Key initiatives • emerging knowledge • future research priorities
UNEP-WCMC	Nicola Barnard	Impacts of ocean acidification on marine biodiversity <ul style="list-style-type: none"> • Synthesis of key scientific findings (examples from regional initiatives e.g. HERMIONE) • Uncertainties and considerations
Seto Marine Biological Laboratory, Kyoto University	Yoshihisa Shirayama	<ul style="list-style-type: none"> • Preliminary results from recent experimentations in the region • Role of cutting edge technology
IUCN Global Marine and Polar Programme	Francois Simard	Addressing the impacts of ocean acidification: the relevance of science for policy <ul style="list-style-type: none"> • Socio-economic impacts/implications • How can science inform/modify policy given time lags of observable change and impact • Integration of OA considerations into national policy (examples?)

Facilitated discussion: (15 minutes)

- What do the CBD SBSTTA recommendations mean for parties if they are adopted?
- How can scientific knowledge on ocean acidification be used to inform and guide national and local strategies and action plans?
- What is meaningful policy change?

- How might the CBD recommendations be taken forward by countries and relevant international organizations/programmes?
- What are the capacity requirements to implement the recommended CBD programme of work on OA?
- How can the issue of ocean acidification be better integrated into other relevant MEA processes?