

Rio+20 United Nations Conference on Sustainable Development, in Rio de Janeiro, Brazil.

Report on activities by Carol Turley and Thecla Keizer, Plymouth Marine Laboratory (PML)



Over nine days (13 to 22 June) a number of events were held in the lead-up to and during Rio+20, the UN Conference on Sustainable Development, throughout Rio de Janeiro, including more than 500 official and side events at the Riocentro Convention Center, where the conference was held. Rio+20 was the biggest UN conference ever held, with broad participation of leaders from Government, business and civil society, as well as UN officials, academics, journalists and the general public. There were a total of 45,381 participants from 188 countries and over a 100 Heads of State and Government, 12,000 delegates and 10,000 NGOs and Major Groups.

Thanks to the many delegates and governments, and sustained pressure and support of the oceans community, there are 20 paragraphs in a dedicated section on oceans and seas, and an additional three paragraphs on small island developing States (SIDS) in the outcome document, which stressed the critical role the oceans play in all three pillars of sustainable development, and “committed to protect, and restore, the health, productivity and resilience of oceans and marine ecosystems, and to maintain their biodiversity, enabling their conservation and sustainable use for present and future generations.” A further brief summary of the outcomes from Rio+20, the Rio Dialogues and the Peoples Summit as well as positive news from the Conference for the ocean are summarized towards the end of this report. The aim of this report is to update those organisations that supported our participation in the process and the scientific messages we brought through this partnership.

Representing Plymouth Marine Laboratory (PML), the UK Ocean Acidification Research Programme (UKOA), the European Project on Ocean Acidification (EPOCA), and Mediterranean Sea Acidification in a Changing Climate (MedSeA) Dr Carol Turley attended RIO+20 and took part in several side events, panels and distributed outreach/knowledge exchange materials. Thecla Keizer (PML) facilitated the logistics of the meeting and the editing + design of knowledge exchange material (see below) made available at the events attended.

Knowledge Exchange materials made available at Rio+20 including in the EU, USA and UK Pavilions, the People’s summit and at the side events of the EU, US, PSIDS and at Oceans Day:

1. *Hot, Sour and Breathless – Ocean under stress* (www.oceanunderstress.com) is a summary for policy makers of the causes and effects of the key issues of ocean warming, acidification and deoxygenation and identifies potential “hot spots” where two or more of these may happen at the same time.

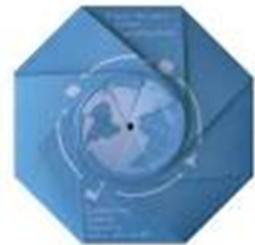


This is a product of an international partnership consisting of Plymouth Marine Laboratory, Scripps Institution of Oceanography at UC San Diego, the European Project on Ocean Acidification (EPOCA - 32 partner institutes from 10 EU countries), OCEANA, the UK Ocean Acidification Research Programme (UKOA - 27 partner institutes from the UK), the Mediterranean Sea Acidification in a Changing Climate project (MedSea - 16 partner institutes from 10 countries mainly bordering the Mediterranean Sea) and the Biological Impacts of Ocean ACIDification programme (BIOACID -19 partner institutes from Germany).



An important development for this product was the official support for its messages received from other concerned international organizations and programmes. It was distributed widely at Rio+20 and advertised with an exhibition banner.

2. Plymouth Marine Laboratory’s short film *Ocean Acidification: connecting science, industry, people and public* (<http://www.youtube.com/watch?v=BPS8ctVW2s>) was shown at a variety of venues throughout Rio+20, including in the UK and EU Pavilions and during the People’s Summit.



The film was translated into Brazilian Portuguese for the conference (see: <https://www.youtube.com/watch?v=DdGqR-AMynQ&feature=plcp>) and is also available with French (<https://www.youtube.com/watch?v=-3TF9qkQ8R4&feature=plcp>) and Korean (<https://www.youtube.com/watch?v=kCp8cetvtL8&feature=plcp>) subtitles.

3. The International Ocean Acidification Reference User Group (iOA-RUG) publication *Ocean Acidification: Acting on Evidence* (<http://www.oceanacidification.org.uk/resources.aspx>).

The iOA-RUG is composed of scientists and research-users and draws on UK, European and international experience in fast-tracking the exchange of information on ocean acidification between scientists and end users.



Events taken part in (presentations mentioned below were by Carol Turley; should you wish to have a copy of the full speaker programmes than please contact tke@pml.ac.uk):

1. **16th June - Oceans Day**, Rio Conventions Pavilion - *Advancing Oceans, Coasts, and Island States at Rio+20 and Beyond* at Rio+20, organised by the Global Ocean Forum (GOF) with PML as a co-organizer.

Oceans Day saw 370 participants from 169 organizations and 46 countries, and hosted exciting and forward-thinking discussion on advancing oceans, coasts, and small island developing States (SIDS) at the Rio+20 Conference and beyond.

Presentation given on *Ocean Acidification* during the *Climate Change and Ocean Acidification Panel*; in addition to Carol the other panel members (see below; from left to right) were Prof Nguyen Chu Hoi (Hanoi University, Vietnam), Ambassador Isabelle Picco (Principality of Monaco), Dr Wendy Watson-Wright (IOC-UNESCO), Ronnie Jumeau (Ambassador for Climate Change and Small Island Developing States Issues, Seychelles) and Lynn Hale (The Nature Conservancy).

The Earth Negotiations Bulletin produced a short summary of The Oceans Day (available here: <http://www.iisd.ca/download/pdf/sd/ymbvol200num4e.pdf>). Carol carried out 3 TV interviews (Climate TV, United Nations Web TV and Positive-Rio TV). <http://www.rtcc.org/climate-change-tv/rio20-our-oceans-hot-sour-and-breathless/> and <http://www.positive-rio.tv/voir-video/une-journee-pour-l-ocean>.



Following Oceans Day the GOF held a press conference on 18 June and a Side Event on June 19 both to provide a briefing on the outcome of Oceans Day with some of the new initiatives highlighted (video of the press conference available at: <http://webtv.un.org/search/ocean-coasts-and-small-island-developing-states-in-the-post-rio20-world-press-conference-rio20/1695728649001?term=oceans>). Ocean Acidification is mentioned as a major concern during the press conference (e.g. 8min in with Wendy Watson-Wright's (IOC) statement); TV footage from Oceans Day speakers is also shown.

The GOF produced a Rio Ocean Declaration:

<http://www.globaloceans.org/sites/udel.edu.globaloceans/files/RioOceanDeclaration.pdf>

Voluntary Ocean Commitments:

<http://www.globaloceans.org/sites/udel.edu.globaloceans/files/RioVoluntaryCommitments.pdf>

2 **17th June – US Side Event**, US Centre - *Making the Invisible, Visible: Advancing International Collaboration on Ocean Acidification Research*.

Presentation given on “*Ocean acidification challenges facing science and society*”. In addition to Carol the other speakers on the panel were:

- Ambassador Isabelle Picco (Principality of Monaco)
- Lisa Speer (Natural Resources Defense Council; NRDC)
- Dr Lisa Suatoni (NRDC)
- Dr Richard Feely (US NOAA)
- Mr Michel Warnau (International Atomic Energy Agency (IAEA)).



Dr Richard Feely (National Oceanic and Atmospheric Administration; see photo) gave a great interview: <http://www.rtcc.org/climate-change-tv/rio20-the-threat-from-ocean-acidification/>.

3 **18th June - EU Side-Event**, EU Pavilion - *Hot, Sour and Breathless - Ocean Under Stress: consequences for sustainable development and resource provision for human communities*.

In the role of joint organiser with Paula Agostini (EC DG Research & Innovation) and Session Chair Carol presented on “*Ocean acidification, warming and deoxygenation and their potential consequences on sustainable development and resource provision for human communities*”. The session included a showing of the PML film *Ocean Acidification: Connecting Science, Industry, Policy and Public* with Brazilian Portuguese sub titles. Other speakers on the panel were:

- Director Manuela Soares (European Commission, DG Research and Innovation, Environment Directorate),
- Dr. Jacqueline Alder (Head Marine and Coastal Environment, UNEP),
- Dr Richard Feely (NOAA Ocean Acidification Research Programme and member of the EPOCA International Advisory Board)
- Dr Wendy Watson-Wright (Assistant Director-General UNESCO, Executive Secretary IOC)
- Margo Deiye (Sustainable Development Advisor Permanent Mission, Republic of Nauru).



Carol was interviewed by Ocean Inc TV on concerns about ocean acidification, warming and deoxygenation – the topic of this side event, and made into this short film <http://youtu.be/WOFhMjc62W0> by them.

2. **20th June - PSIDS Side-Event** *Building Marine Ecosystem Resilience to Ocean Acidification*; organised by the Pacific Small Island Developing States at the United Nations in New York (namely Fiji, the Republic of the Marshall Islands, the Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu) together with Earthjustice.

Presentation given on *Ocean Acidification: science overview & vulnerable regions and hot spots*. Other panel members were: Ambassador Marlene Moses, (Chair of the Alliance of Small Island States), Dr. Andreas Andersson (Scripps Institution of Oceanography), Alison Reed (National Oceanic and Atmospheric Administration), Trip Van Noppen & Erika Rosenthal (Earthjustice) and Margo Deiye (Sustainable Development Advisor Permanent Mission, Republic of Nauru).

- 4 **2012 is GREAT - UK Pavilion at Rio+20.** This was a major public diplomacy opportunity and was open to the public from 13-19 June and then from 23-24 June. 20-22 June it was open only to those people accredited to the Rio+20 conference.

PML was an exhibitor in the Pavilion with a stand built as part of the overall exhibition design showing the PML film on ocean acidification with Brazilian Portuguese subtitles. DVDs of the film, the Hot Sour and Breathless document and badges (www.oceanunderstress.com) and PML pens were available to visitors.

Having a presence at this pavilion created the opportunity for Carol to highlight the 'Oceans under Stress' message

and meet with the Brazilian Ambassador, Sir John Beddington (Chief Scientist to UK Government, GO Science), Robert Watson (Chief Scientist, DEFRA), Stewart Stevenson (MSP, Minister for Environment and Climate Change, Scotland) and Nick Clegg (Deputy Prime Minister).



5. The People's Summit

The People's Summit for Social and Environmental Justice during Rio+20 was an event organized by global civil society that took place in Rio de Janeiro – alongside the United Nations Conference, Rio+20. The People's Summit was part of a historical process of accumulation and convergence of local, regional and global struggles that have anti-capitalist, classist, anti-racist, anti-patriarchal and anti-homophobic political frames. Its aim was to take the opportunity to influence the official Rio+20 outcomes to address the problems that humanity is facing and demonstrate the political power of organized people. Many of the reports of the reactions of Civil Society with regard to the Rio+20 outcomes were not positive. The "People" obviously wanted more in terms of real and urgent commitment rather the informal voluntary outcomes from the Rio+20 processes.

Following contacts made during the Planet under Pressure Conference in London March 2012 PML confirmed participation at the People's summit; DVD's of the PML film (with Brazilian Portuguese subtitles kindly provided by Prof. Dr. Angela Wagener of the Laboratório de Estudos Marinhos e Ambientais (LABMAM) Departamento de Química PUC-Rio) together with the Hot, Sour and Breathless document were sent.

The Rio+20 Outcomes – in general

The Rio+20 Conference Outcome Document "*The Future We Want*" is available at <http://www.uncsd2012.org/thefuturewewant.html>. The outcome document calls for a wide range of actions, such as detailing how the green economy can be used as a tool to achieve sustainable development; strengthening the UN Environment Programme (UNEP); promoting corporate sustainability reporting measures; taking steps to go beyond gross domestic product to assess the well-being of a country; developing a strategy for sustainable development financing; and, adopting a framework for tackling sustainable consumption and production.

It also focuses on improving gender equity; recognizing the importance of voluntary commitments on sustainable development; and stressing the need to engage civil society and incorporate science into policy; among other points.

“Rio+20 was a success,” said Secretary-General Ban Ki-moon at a General Assembly meeting on the outcome of the Conference. “In Rio, we saw the further evolution of an undeniable global movement for change.” He emphasized the importance of the more than 700 commitments registered during the Conference “This is a remarkable testament to bottom-up, grassroots commitment. The world is watching and will hold us all accountable to the commitments made in Rio.”

However, Civil society, NGO’s and the media were far less positive about the outcomes from Rio+20, based on the suspicion that the voluntary outcomes will not be implemented. Bearing that in mind the achievements of Rio+20 are probably best summarized by the President of the General Assembly, Abdulaziz Al-Nasser. He called on Member States to respect their commitments made in relation to Rio+20 “so that they can guide our future actions.” “Implementation is imperative if we are to attain the future we want,” he added. “Now that the summit is over, the real work begins, and we all have our parts to play for ultimate success.”

- **Some Good News Outcomes from Rio+20 for Oceans and Seas**

Oceans and Seas were one of the main themes considered within Rio+20 and outcome numbers 158-177 in the document refer to them. After months of work from individuals and organisations all around the world **an ocean acidification specific outcome** (Number 166) is:

“We call for support to initiatives that address ocean acidification and the impacts of climate change on marine and coastal ecosystems and resources. In this regard, we reiterate the need to work collectively to prevent further ocean acidification, as well as enhance the resilience of marine ecosystems and of the communities whose livelihoods depend on them, and to support marine scientific research, monitoring and observation of ocean acidification and particularly vulnerable ecosystems, including through enhanced international cooperation in this regard.”

Sir John Beddington (Chief Scientific Adviser to Prime Minister David Cameron) and Jane Lubchenco (Undersecretary of Commerce for Oceans and Atmosphere, and Administrator, U.S. National Oceanic and Atmospheric Administration) wrote about their concerns about ocean acidification in a **New York Times article**. http://www.nytimes.com/2012/06/19/opinion/acid-test-for-oceans-and-marine-life.html?_r=1. This article was timely as it came as government leaders from around the world met at Rio+20, to address our planet’s environmental challenges. Many environmental leaders, including PMEL Carbon Group lead, Richard Feely, and PML’s Carol Turley were emphasizing the issue of ocean acidification in discussions at the Rio +20 events.

The article mentioned the good news story which was simultaneously unveiled at the Earth Summit. With ocean acidification as an emerging global threat, Britain and the United States are joining a community of concerned nations to establish **an Ocean Acidification International Coordination Center (OA-ICC)** at the International Atomic Energy Agency (IAEA) at its Environmental Laboratories in Monaco (<http://www.iaea.org/newscenter/pressreleases/2012/prn201218.html>). The development of the concept of an OA-ICC as well as the proposal has been very much a bottom-up initiative by scientists via the SOLAS-IMBER Ocean Acidification Working Group of experts from across the world. During Rio+20 side events Richard Feely also announced the **International Workshop to Develop an Ocean Acidification Observing Network of Ship Surveys, Moorings, Floats and Gliders**, University of Washington, Seattle June 26 - June 28, 2012. The goal of the workshop was to develop a coordinated multidisciplinary multinational approach for observations and modelling that will be fundamental to establishing a successful research strategy for ocean acidification (<http://www.pmel.noaa.gov/co2/story/International+Workshop+-+Ocean+Acidification>).

- **The “Rio Dialogues”**

The Government of Brazil organized, with the support of the United Nations, the Sustainable Development Dialogues, was held in Riocentro, between June 16 to 19, in the context of Rio+20.

Representatives from civil society, including private sector, NGOs, scientific community, among other major groups, convened at the same venue of the Rio+20 Conference. They engage in an open and

action-oriented debate on key topics related to sustainable development. Three recommendations emanating from each of the Dialogues which were conveyed directly to the Heads of State and Government present at the Summit:

<http://www.uncsd2012.org/index.php?page=view&type=1015&nr=8&menu=23>

There was a unique opportunity for anyone to directly contribute and influence the policy dialogue by sharing their expertise and suggestions to the Rio+20 Conference. Online discussions which anyone could join served as a sounding board leading up to the Sustainable Development Dialogue panels during the Dialogue Days. Ocean acidification and its sister stressors of warming and deoxygenation were part of the on line discussion.

Prof John Field (University of Cape Town, South Africa) played a key role in these dialogues through the online facilitation and kindly offered to distribute the Oceans under Stress brochure during the Ocean event on June 19; unfortunately these did not arrive at his hotel due to issues with customs in Brazil.

The recommendations from the Ocean dialogues were:

1. Avoid ocean pollution by plastics through education and community collaboration.
2. Launch a global agreement to save high seas marine biodiversity.
3. Take immediate action to develop a global network of international marine protected areas, while fostering ecosystem based fisheries management, with special consideration for small-scale fishing interests.

