



## A Daily Report of the World Ocean Conference

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### WOC2009 HIGHLIGHTS: WEDNESDAY, 13 MAY 2009

ON WEDNESDAY, 13 MAY 2009, THE WORLD OCEAN CONFERENCE 2009 ENTERED ITS THIRD DAY IN MANADO, INDONESIA. AT THE GRAND KAWANUA CENTRE, PARTICIPANTS ATTENDED GLOBAL OCEAN POLICY DAY, WHICH INCLUDED FOUR PANELS ON ISSUES SURROUNDING OCEANS AND CLIMATE CHANGE ADAPTATION AND MITIGATION. MEANWHILE, AT THE MANADO CONVENTION CENTER, PARTICIPANTS GATHERED FOR THE SECOND DAY OF THE INTERNATIONAL SYMPOSIUM ON OCEAN SCIENCE, TECHNOLOGY AND POLICY.



Freddy Numberi, Minister of Marine Affairs and Fisheries, Indonesia banged the gong to officially open GOPD

### GLOBAL OCEAN POLICY DAY

Global Ocean Policy Day (GOPD) featured an opening plenary session followed by panel-led discussions on: climate change mitigation; adaptation measures and security concerns; financing adaptation; and the future of oceans and the climate change agenda. Participants were also presented with a summary report of the preparatory sessions that led up to the event.

### Opening Plenary

GOPD opened with a presentation by Gellwynn Jusuf, Ministry of Marine Affairs and Fisheries, Indonesia. He described the GOPD as a historic undertaking requiring multiple stakeholders to emphasize the connections between global climate change and the oceans and coasts. Biliانا Cicin-Sain, Global Forum on Oceans, Coasts, and Islands, reflected on the convergence of governmental, NGO, IGO, and science and industry sectors to deal with the urgent economic and environmental ramifications associated with oceans and climate change. She highlighted the subjects to be deliberated at GOPD, including: the role of the oceans in sustaining life, regulating climate, and serving as an alternative source of energy; adaptation measures to assist

coastal-dwelling people; ecosystem-based approaches for preserving biodiversity and human communities; mustering sufficient financial commitments; capacity building; the involvement of civil society and the private sector.

Freddy Numberi, Minister of Marine Affairs and Fisheries, Indonesia, emphasized the indispensable environmental and economic role of the oceans. He described the limited ability of the ocean to act as a buffer and that despite all the concern, cause for cautious optimism remains if action is taken now. He emphasized the need to bring the issues discussed at GOPD to the attention of the UN Framework Convention on Climate Change (UNFCCC) meeting in Copenhagen and reinforced the Indonesian government's commitment to these proceedings. The GOPD was officially opened when Minister Numberi rang a ceremonial gong, which was met with applause from the assembled delegates.

Angela Cropper, Deputy Executive Director, UNEP, acknowledged the important interface between climate change and oceans, but recommended further elements to be considered

by GOPD. Cropper recalled the activism of the 1980s and early 1990s, which provided the basis for taking a precautionary approach to climate change. She noted the current status of fish stocks in the world, stressing the need for integrative approaches to reverse their decline. On the impacts of climate change to small island developing states (SIDS), she noted the lack of adaptation measures enacted since the adoption of the 1994 Barbados Programme of Action. She emphasized the need to address other interconnected impacts to oceans ecosystems, including: deep seabed mining and pollution. She urged GOPD to develop a unified approach to oceans management.

Van Duc Nguyen, Ministry of Natural Resources and Environment, Viet Nam, described changes in weather patterns and associated impacts on coastal zones and oceans, including: temperature rises; droughts; and modification of ecosystems, fisheries and aquaculture. He noted that Viet Nam is a poor country and acknowledged the international support for implementation of adaptation measures.

Ambassador Dessima Williams, Permanent Representative of Grenada to the UN and Chair of the Alliance of Small Island States (AOSIS), presented on perspectives of SIDS on climate change and on climate change negotiations. She said AOSIS comprises a group of 43 SIDS in the African, Indian Ocean, Caribbean and Pacific regions that focuses on climate change and sustainable development issues. She revealed that the main objective for SIDS at the 15th Conference of the Parties of the UNFCCC in Copenhagen is to reach an agreement on: a common and shared vision, mitigation and adaptation measures, and financing proposals. Ambassador Williams stressed that the challenges of climate change are applicable to all coastal communities and hoped that a strong agreement will be reached at the Copenhagen meeting.

## PANEL 1: CLIMATE CHANGE MITIGATION

Cropper opened the first panel and thanked the eight panelists for their attendance. Patricio Bernal, Executive Secretary, UNESCO, stressed the need to explore new ways to mitigate the impacts of climate change. According to Bernal, new options worth exploring for carbon offset include oceanic carbon capture and storage and mangrove restoration. Tony Haymet, Scripps Institution of Oceanography, US, underscored the lack of an urgent response to scientific findings on climate change. The exponential rise in carbon dioxide from burning fossil fuels has increased ocean acidity and subsequent research

suggests that this corrosive water will dissolve vast calcium carbonate coastlines including eastern North America.

Ove Hoegh-Guldberg, University of Queensland, Australia, declared that if the Copenhagen negotiations are only based on limiting carbon dioxide concentrations to 450ppm and temperature rises to two degrees Celsius, catastrophic consequences will result. He supported comments made by Williams that policy has misunderstood scientific messages and must aim for much lower targets. He suggested that a 40 percent probability of exceeding catastrophic thresholds is like playing Russian roulette.

Roberto Calcagno, Prince Albert Oceanographic Foundation, Monaco, stressed the importance of adequate communication between the scientific world, civil society and policy-makers and invited participants to contribute to the Monaco Ocean Summit to be held between 1 - 2 April 2010. Bernard Giraud, Danone Group, and Christophe Lefebvre, Councilor for IUCN, then informed participants of the benefits of mangrove restoration shown by African pilot projects.

Jeff Price, WWF-US, encouraged participants to consider the critical assumptions underlying the discussions of climate change. He stated that saving the oceans will require achieving an 80% reduction in greenhouse gas emissions and halting nearly all deforestation. Duncan Currie, Greenpeace International, emphasized that the loss of marine biodiversity will lead to a reduction in the resilience of the ocean. He discouraged using ocean fertilization as a means of sequestering carbon dioxide and promoted ecosystem- and precautionary-based approaches to protect the oceans. He described alternative energy sources including tides, currents and waves, encouraged both the creation of MPAs and closing the governance gap on the high seas, and emphasized the importance of the ocean in any agreement in Copenhagen. Questions from the floor called for more immediate access to scientific and policy information and the permanent review of oceans within UN General Assembly processes.

## PANEL 2: ADAPTATION MEASURES AND SECURITY CONCERNS

Ambassador Laurent Stefanini, Ministry of Foreign and European Affairs, France, cautioned that there is a climate change “point of no return” beyond which adaptation will not be possible, and called for greater cross-sectoral coordination on adaptation strategies. Raphael Lotilla, Partnerships

in Environmental Management for the Seas of East Asia (PEMSEA), noted the many cross-cutting issues that affect sustainable development and stressed the need for partnerships at the local and global level for integrated coastal management. He described key governance considerations, including long term planning and institution building and highlighted that several East Asian countries have enacted laws supporting integrated coastal management.

Poh Poh Wong, Coordinating Lead Author, IPCC Fourth Assessment Report, highlighted the most vulnerable areas including low lying coasts, islands and mega-deltas. He said that “disastrous multi-meter sea level rise” is expected, and emphasized the importance of mangrove planting as an adaptation measure to tackle climate change impacts such as sea level rise. He also noted other benefits of mangrove planting not directly associated with climate change, such as an adaptation measure for tsunamis. Wong underscored the need to start implementing adaptation measures now to reduce the respective costs.

Nicole Glineur, GEF, presented on adaptation measures, noting that climate change will result in losses of coastal lands and mangrove ecosystems, reducing their ability to provide food and income. She said communities and ecosystem-based responses should be at the heart of adaptation strategies. Glineur also noted that adaptation measures should encompass: the combination of modern science with traditional knowledge, empowerment of community decision-making, and management of ecosystem services. She cited the Samoa Project on Integrated Climate Change Adaptation and the Pacific Alliance Sustainability programme as GEF-supported examples of adaptation projects in coastal and marine areas.

Thabit Zahran Al Abdessalaam, Environment Agency, United Arab Emirates, said climate change is expected to have large effects on socioeconomic conditions, food security and biodiversity. He emphasized that adaptation requires strategies to reduce the negative impacts of climate change, including: long-term monitoring programmes; the development of coastal resources atlases, and the use of models and tools to forecast species and habitat responses. He cited the Masdar and Estidama initiatives in Abu Dhabi as examples of climate change strategies, which include clean energy, green building, and energy conservation projects.

## PANEL 3: FINANCING ADAPTATION

Al Duda, GEF, identified the many financial opportunities available for climate change projects. He acknowledged the many billions of dollars that may be needed for adaptation. However, GEF has provided US\$2 billion in grants and co-sponsored US\$14 billion towards projects in the last 15 years. Duda emphasized that GEF funding can facilitate many marine projects to cope with climate variability. He recommended that participants should: submit funding proposals; work with climate change negotiators to ensure that they discuss ocean initiatives at climate meetings; and engage with GEF and other funding institutions to support their projects. David McCauley, Asian Development Bank, commented on the recent mobilization of adaptation resources, particularly in Asia. He noted the opportunities provided by the ambitious fifth GEF budget replenishment; numerous bilateral funding sources for climate initiatives; and the rapid expansion of global carbon markets.

Ralph Payet, Special Advisor to the President of Seychelles, spoke on why SIDS require financing for mitigation and adaptation. He supported the need for local communities to receive the billions of dollars identified by the other panelists. Payet also acknowledged recent World Bank research showed that trade between SIDS is about 10-15 times more than that between continental states and disaster damage is also much higher as a percentage of GDP.

Michael Koehler, European Commission, highlighted the importance of creating economic incentives for developed and developing countries to keep temperatures from increasing by more than 2°C. Koehler stressed the need for policy and financial instruments to contribute to effective climate change adaptation. He suggested that effective emissions trading systems might help finance the inevitable high costs associated with these ideas. Subsequent discussion arose over developing convergent versus country-specific solutions for climate change concerns, and creating economic opportunities for SIDS to tackle climate change and coastal problems.

## SUMMARY REPORTS FROM PREPARATORY MEETINGS

Bill Eichbaum, WWF-US, presented on the central role of the oceans in climate negotiations. He said the oceans represent the most important natural sink for carbon, noting that destabilized marine environments can exacerbate global

warming. He emphasized the gravity of climate-induced ocean changes, stressing that poorer coastal communities will require funding and technical assistance for mitigation and adaptation. On the importance of including ocean and climate issues within climate negotiations, he called for: an increase in science-based action through influencing IPCC; a strong interplay between UNFCCC and other conventions; adoption of a ministerial declaration at Copenhagen; and an official statement under Article IV of the UNFCCC. He emphasized that a mitigation strategy based on thresholds of a two degree Celsius temperature increase by mid-century or 450 ppm atmospheric concentrations of carbon dioxide is insufficient. Patricio Bernal, IOC/UNESCO, said that the mitigation ability of oceans has not received enough attention, but added that upcoming consultations with IPCC are designed to change this. He stressed that adaptation strategies need to be developed for different scales, including: global legal frameworks and financing mechanisms; regional integration of climate into regional institutions; and participation of affected communities.

Lynne Hale, The Nature Conservancy, called for an approach to ecosystem-based adaptation that enhances resilience of natural systems while using them as a cost-effective infrastructure against climate change impacts. She said that greater investment in ecosystem-based adaptation is needed, along with incentives for climate-smart development. She noted that meeting new challenges will place strain on existing institutions.

Peter Bjornsen, GEF, discussed adaptive management institutions and highlighted that climate change compounds existing pressures on the marine environment, such as pollution and overfishing. He also said that adaptation efforts should build upon existing institutions and their wealth of experience. Rolph Payet, Seychelles, presented on “addressing the climate divide,” stressing that the world’s large economies need to make major steps toward mitigation. Salvatore Arico, UNESCO, described the role of MPAs in adaptation, noting that greater biodiversity allows for adaptation and the maintenance of important ecosystem services.

Gunnar Kullenburg, former Executive Secretary, Intergovernmental Oceanographic Commission. (IOC/UNESCO), presented on ocean-based mitigation, noting that this needs to be mainstreamed within climate negotiations. He indicated uncertainties associated with carbon capture and storage in seabeds, including its impact on sea life and leakage potential, and called for a financial mechanism for the

development of ocean-based hydrokinetic energy.

Philippe Vallete, World Ocean Network, called for the mobilization of public and private sectors through awareness campaigns at multiple levels and the promotion of “ocean ambassadors.” Werner Ekau, International Ocean Institute, Germany, presented outcomes of a workshop on ocean governance held in Thailand just prior to the WOC2009. He reported that participants agreed that existing agreements need to be implemented, and that this will require greater institutional capacity.

## THE OCEAN AND CLIMATE CHANGE AGENDA

Andrew Hudson, GEF, said that consensus was reached on the feasibility of adaptation measures, but noted that depending on the actual impacts of climate change, they may be inadequate. He emphasized the need for science to predict the effects of climate change. Hudson stressed that ocean acidification will constitute the major impact of climate change, to which oceans will be unable to adapt. On the serious impacts of nitrogen input into the oceans, he encouraged the negotiation of a nitrogen convention to control respective impacts.

Raphael Bille, Institute for Sustainable Development and International Relations (IDDRI), said the world needs a progressive, global and planned revolution to tackle climate change. He called for the incorporation of oceans and coasts into UNFCCC discussions, noting that Copenhagen will provide such an opportunity, but further actions will be required.

Biliana Cicin-Sain outlined the objectives of Global Oceans Conference 2010 (GOC2010) to be held at UNESCO in Paris from 3-7 May 2010, which will coincide with the 50th anniversary of the IOC/UNESCO. Possible themes include: oceans, climate and security; integrated marine and coastal policies; ecosystem-based management progress markers; marine biodiversity; integrated governance of marine areas; capacity building in developing countries; mobilizing public and private sectors for global ocean stewardship. Patricio Bernal eagerly anticipated GOC2010 as an important mechanism for continuing to emphasize the ocean agenda. Ambassador Laurent Stefanini spoke about emission reduction goals and the overlap of GOC2010 and the international year of biodiversity. Chair Michael Koehler underlined the need to integrate oceans, seas, coasts and islands into discussions of climate change and suggested that market mechanisms might lead to more responsible management of marine resources.